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ORIGINAL ARTICLES.

THE PRODUCTION AND PREVENTION OF PERINEAL LACERATIONS DURING LABOR, WITH DESCRIPTION OF AN UNRECOGNIZED FORM.[1]

BY HENRY T. BYFORD, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF CHICAGO.

In order to bring my subject before you within the allotted time, it will be necessary for me to confine myself largely to general statements, and to omit many desirable but time-consuming details.

First let me call attention to the peculiar qualities of the obstetric perineum, which, during the previous eight or nine months of passive congestion, has undergone an astonishing amount of development. The muscular tissue has become hypertrophied, the fascia thickened and strengthened, and the loose connective tissue[2] proliferated, until the vaginal and vulval mucous membrane, under the stimulus of labor, roll out at the vulva, in much the same manner as the mucous membrane of the cervix rolls out at the os during prolonged congestion or inflammation about the broad ligaments. Towards the end of the first stage of labor in healthy young primaparæ, the vaginal orifice will admit a small hand with but little more inconvenience than, nine months before, it would have admitted two fingers.

For the purpose of illustration we may divide the obstetric perineum into two parts: the vulval or external, and the vaginal or internal. The vulval portion may be said to be bounded above, or anteriorly, by the labia majora and vestibule; below, or externally, by the cutaneous surface between the thighs, the fourchette and the anus; and behind, or internally, by the muscles of the perineum. It is composed mainly of skin, mucous membrane, and loose connective tissue, containing fat, vessels, etc. The internal or vaginal portion may be said to include the remaining structures belonging to what is ordinarily described as the perineum. It is composed of the fascia, muscles, ligaments, etc.

In labor, when the occiput presses against the perineal body, so as to put the muscles and fascia slightly upon the stretch, we can, by hooking the finger over the fourchette into the fossa navicularis, and pulling outwards just as a pain is ceasing, and the head commencing to recede, demonstrate two perineal rings. The external or vulval ring, formed by the edges of the labia majora and fourchette, is elastic, of a well-defined oval shape, and attached to the pubic bone above the clitoris. The internal, or vaginal, ring corresponds with the labia minora and edge of the external perineal muscles and fascia. It feels like a whip-cord stretched from the clitoris down through one of the labia minora, across the lower edge of the vaginal orifice, up through the other to its starting point. In figure 1 these rings are represented as separated below by the finger over the fourchette, as already indicated. (The vulval and vaginal tissues about the rings are not drawn.)

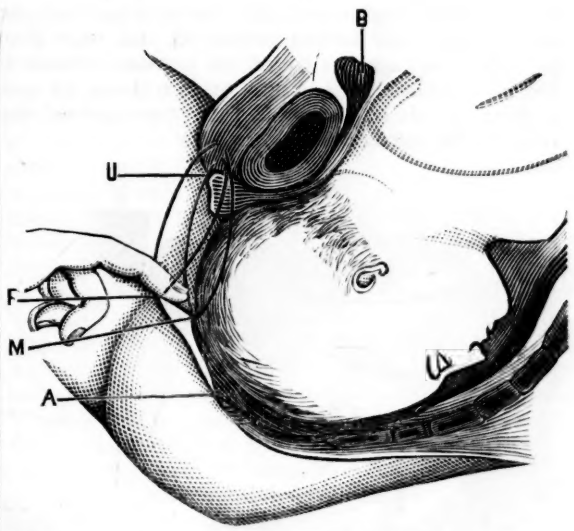


FIGURE 1.—A, anus; B, bladder; F, fourchette; M, muscular edge; U, urethra.

When the head recedes so as no longer to put the vaginal orifice on the stretch, the external ring collapses, and the internal ring disappears. Later, when the parts bulge and become distended, the internal ring, especially the lower edge, is lost in the flattened or quasi-membranous body of the perineum, as in figure 2. But of course it has a definite place, viz., the beginning of the muscular tissue; and extends as far below the fourchette as the length of the antero-posterior diameter of the somewhat stretched fossa navicularis, which connects them internally.

[1] Read before the Chicago Medical Society, February 15, 1886.

[2] The term fascia here is confined to the firmer tissue, and not to loose connective tissue, to facilitate distinction of parts.

Above or external to this vaginal, or internal, ring there is, practically speaking, no muscular tissue, but only skin, mucous membrane, loose connective tissue, fat, vessels, etc.

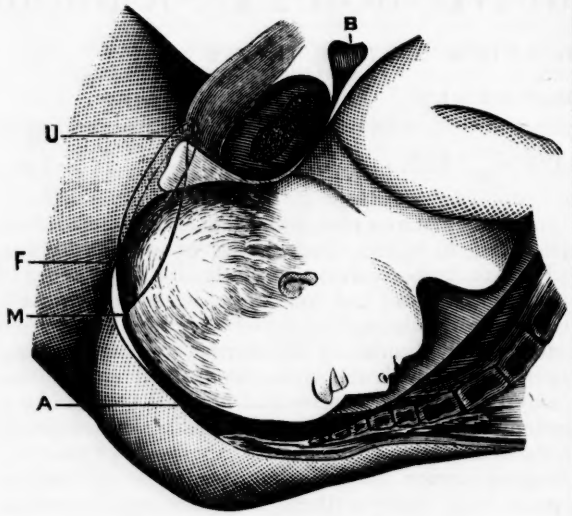


FIGURE 2.—A, anus; B, bladder; F, fourchette; M, muscular edge; U, urethra. (After Schröder.)

When the perineum becomes stretched four to five inches antero-posteriorly, the lower edges of the rings become still farther separated, and more than an inch of the upper edge of this quasi-membrane is devoid of muscular structure, or firm fascia, as seen in figure 3. It will be noticed that the external ring remains the smaller of the two.

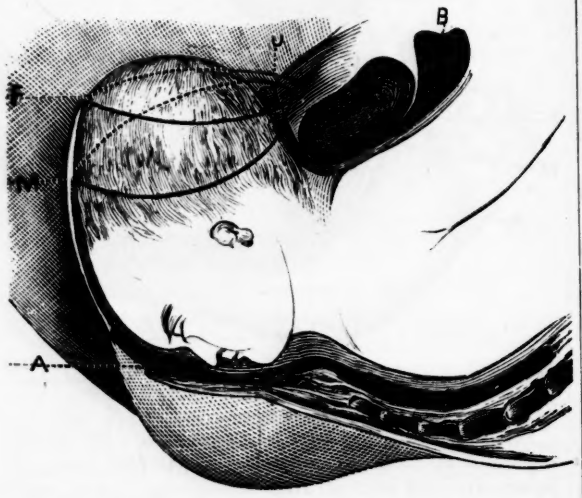


FIGURE 3.—A, anus; B, bladder; F, fourchette; M, muscular edge; U, urethra. (After Schröder.)

In determining how the perineum will be affected in labor, we must take into consideration its advance over the pelvic floor, where its direct descent is arrested. If the progress of labor at this stage be slow, the liquor amnii, pressing under the chin of the fœtus, will have time to extend the head before the propelling force will have driven the occiput forwards, so as to put the perineum very much upon the stretch. When this submental pressure has produced extension as far as it is capable, if the orifice of the parturient canal be sufficiently relaxed or dilated for the apex to engage in it, then the head will easily pass through

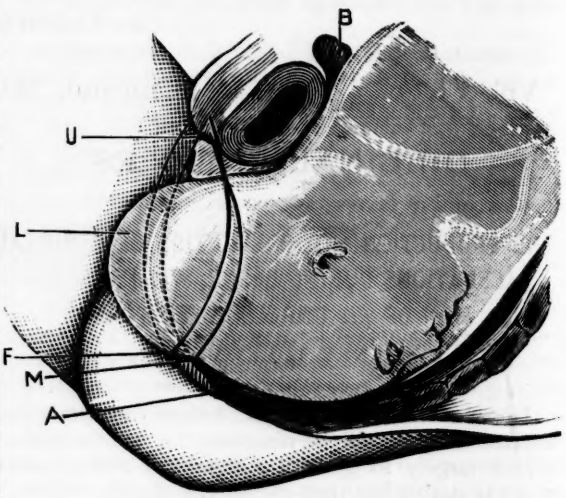


FIGURE 4.—A, anus; B, bladder; F, fourchette; L, liq. amniis; M, muscular edge; U, urethra.

it (figure 4). If, however, this orifice be not so relaxed or dilated, then the advancing fœtal head will stretch the perineum from four to five inches antero-posteriorly, push the fourchette upwards instead of downwards, and drive the perineal rings before it, instead of dilating them and passing through them; and will cover itself with the flattened perineum, in which the muscular fibres are separated, and the fascia stretched to their limit of resistance. (Compare figures 2 and 3 with figure 4.) As the forehead passes beyond the coccyx and ligaments, the propelling force acts against this quasi-membrane somewhere near the region of the anus, for there is now no directing force left except these attenuated muscles and fascia of the perineum.

Now if the pains still be moderate and the tissues unusually strong and elastic, they will finally work up the occiput and draw the edges of the vulvar opening over the head. But the difficulty is this: If the pains be moderate, their pressure being against the neighborhood of the perineal centre of resistance, is counteracted by the almost direct counter-pressure from that centre, and the retractibility of the over-stretched and flattened tissues being but feeble, the head remains almost stationary until, as Barnes expresses it, "the circulation becomes impeded, and, after a time, the tissue half necrosed, becomes as brittle as wet brown paper, yielding under the slightest force." ("Obstetric Medicine and Surgery.") Rupture is thus almost certain to resnlt. If, on the other hand, the pains be very strong, the resistance at the perineal centre is not powerful enough, and a rupture must occur. The lost link in the delivery of the head is thus seen to be the absence of an efficient

directing force towards the vulval outlet. Or, to express it differently, the head has got beyond the reach of its efficient directing forces, before it is delivered. This great mistake of nature, as it thus appears, has led to the invention of numerous devices for supporting or, more properly speaking, managing the perineum.

There are five methods of doing this:

1. Supplying the directing force, by pressing up the head so as to hold the sub-occiput under and against the pubic arch.

2. Supplementing the resisting force of the perineal centre by pressing against the advancing head, and thus gaining time for relaxation above.

3. Goodell's manœuvre of pulling forward the deeper portions of the perineum, and so diminishing the tension.

4. Artificial dilatation.

5. A combination or modification of some of these four methods for the purpose of securing the delivery of the head between pains.

Almost all lacerations that occur may be described under three heads: Lacerations of the vulval perineum; of the vaginal perineum; and compound lacerations, or those which involve both of the structures.

Laceration of the Vulval or External Perineum.—We may have a rupture of the perineum extending from the external to the internal perineal rings, viz., through the mucous membrane of the fossa navicularis down to the edge of the muscles (from F to M, figure 3), and through a corresponding amount of skin externally. After delivery the torn surfaces represent two isosceles triangles, whose bases meet in the median line, and whose apices are the torn corners of the fourchette. The tear through the cutaneous surface will in some cases be extended much further, laying open the loose connective tissue down to the external anal sphincter. In addition to this lesion we may have a transverse rupture across the posterior portion of the vestibule, just in front of the vaginal orifice, giving to an almost harmless form of laceration an exceedingly ragged and threatening appearance, especially in fat persons.

Such lacerations are produced when the perineum is stretched from four to five inches antero-posteriorly, and the internal, or vaginal, ring being larger and extending about an inch and a half lower than the external, or vulval, ring, suddenly slips over the advancing forehead and drags the insufficiently dilated vulval ring so rapidly after it as to tear it. The transverse rupture may occur first, and the other afterwards; or efficient management may enable the head, and even the shoulders, to be born without tearing through much, if any, of the skin. Forceps, by rapid extraction or faulty shape, rupture these parts in a large percentage of cases in which they are used.

The simplest and most rational way of preventing this form of laceration is to stretch the external, or vulval, ring until its lower edge corresponds to the lower edge of the internal, or vaginal, ring, and keep it there. Both rings being practically of the same size, will then slip over the head together, and the external perineum be protected behind the internal.

Laceration of the Vaginal Perineum.—We may have lacerations of the vaginal perineum involving the vaginal mucous membrane only, or the submucous tissues only, or both together.

The mucous membrane may give way from friction against the head, or from over-distension, yet need not concern us here unless it involve muscles and fascia underneath. They are produced by a rapid advance of the head not giving time for normal stretching, or by the failure of a directing force to push the occiput above the upper edge of the muscles and fascia. Just as the fascia gives way in the median line, a falling off in the pain, a timely management of the perineum, or a relaxed condition of the outlet, either by checking the too rapid advance or finally directing the occiput through the vulva, allows of delivery without entension of the rupture through the vulva and skin.

In this class belongs the variety described by T. A. Emmet, in which a transverse, or circular, laceration takes place at the internal or vaginal ring, separating "the pelvic fascia just where it is reflected from the sulcus on each side over the muscles at the vaginal outlet." (*Medical News*, January 23, 1886.) When this "transverse tear takes place, and the head continues to advance, the connective tissue between these muscles separates, and the muscles themselves are drawn aside, as a curtain, with often not the slightest injury to the skin in front, or the mucous coat of the vaginal canal." (Op. cit.)

If, however, the vaginal mucous membrane be sufficiently loose and voluminous to remain intact during the separation of fascia along the median line, or the rending of muscle laterally, and the progress of the occiput be then checked and guided by a proper directing force, we may have a purely submucous rupture. But we may also have a descent of the head which will not be rapid enough to thus tear whole muscles apart, yet so rapid that, when the perineum is stretched to its utmost limit, and the line of advance of the head is pointing towards the perineal centre of resistance, the muscles and fascia will become over-distended, and the fibres and tissues give way all through the membranous cap without implicating either the vaginal or cutaneous surfaces. Such is not a very uncommon occurrence in malpresentations, and in forward rotations of the occiput. The main evidence of this form of diffuse laceration is a soft and dilated condition of the parts, persisting after several hours have elapsed, when we expect at least some evidence of returning tonicity. The condition is similar to that of the anus after one of those rapid dilatations from which the sphincter never recovers its former contractibility.

Sometimes the posterior tissues are thus lacerated, especially along the curve of the advancing forehead, or of the forward rotating occiput, without any injury to muscles about the vaginal outlet. I have known the sphincter ani, in such cases, to require many weeks to recover its power to retain thin fluids. The expulsive power of the lower rectum has been generally lost, at the same time. Sometimes, on the other

hand, the muscles about the vaginal orifice will be the only ones to suffer. While these diffuse submucous lacerations, whether general or regional, have not been recognized as lacerations, their effects have been noted. They have been called "over-distension of the entire pelvic floor" (Mundé); "overstretched muscles and fascia" (Emmet, Polk); "subinvolution of the uterus and vagina" (Murray, Polk, Cleveland, and others), etc.

In order to bring the ends of broken fibres together, the perineal body should be gathered up by two or three stitches taken from the cutaneous surface, and avoiding puncture of the vaginal and rectal mucous membranes. Otherwise normal involution and contraction may never occur, and permanent displacements of the pelvic viscera will result. The perineal tissue may then be likened to a worn-out elastic suspender, in which the rubber threads are broken and the elasticity gone. Its length may be reduced by removing a piece and sewing the ends together, but its elasticity can never be restored without putting new rubber into it. A fortunate circumstance in connection with such cases is that in some portion of the tissues enough unruptured muscular fibres, or uninjured fascia, may be left to act with the skin as a brace to the rest, and, with the aid of hot douches at 115° to 120° F., and rest in bed, may restore a fair degree of usefulness to the perineum.

Care, however, must be taken not to confound this form of laceration with that condition of the parts in old primiparæ, in which there is but little or no rupture of muscular fibre, or of the superficies; but extensive and severe bruising, and a subsequent delay in contraction until the preventing inflammatory induration abates. Contraction may not commence for several, days and may not be completed for a couple of weeks. In such cases the parts are of course very much discolored and benumbed. The perineum seems like a thick piece of soaked or softened leather, and retains a somewhat wrinkled cap-shape for many hours. The introduction of stitches to draw the parts, thus injured, into shape is not only difficult, but decidedly harmful.

Laceration of the vaginal perineum is prevented by securing a slow advance of the head over the deeper and posterior portions, and by directing the occiput upwards, under the pubic arch. The proper way to secure this directing force is to dilate the vulval and vaginal rings, so that the occiput will engage in them before the forehead has got beyond the ligamentous perineum. Then the lower edges of the two rings become a directing power and lift the occiput up under the symphysis through the already dilated outlet. This descent of the lower edge of the rings brings the tissues together in a solid mass near the anus, and renders them capable of meeting any ordinary propelling force without danger of rupturing. The meddlesome and unnatural practice of using hot vaginal douches, for relaxing the perineum before delivery, cannot be too strongly condemned. They wash out the natural secretions and leave a comparatively dry and irritable mucous membrane, thus increasing friction and danger; they either contract the tissues or lessen their tonicity, seldom relaxing without weakening, as does a normal advance and recession of the ovum; they can with difficulty be used without increasing the discomfort and anxiety of the patient; they are less efficient for the relief of irritability of the parts than hot applications to the abdomen and external perineum, or hot hip baths.

Compound Lacerations.—Of the remaining class of perineal lacerations, or those in which both the vulval and vaginal portions are concerned, the simplest form is that in which the superficial muscular fibres give way in the median line along with the fourchette. This occurs with a rapid delivery of the head, as in forceps cases; and especially during great bulging of the perineum, when the posterior portions have been dilated, and the last few insufficiently dilated fibres about the vaginal ring unable to stand the stress of a strong pain. The advancing forehead may extend the laceration down to or through the sphincter ani. Emmett's T-shaped laceration may result from this kind of strain, and then involve the vulval portions. Or the laceration may commence in the vagina, below the vaginal orifice, and then be completed externally by the advancing head or shoulders. Or if pains be strong, and particularly if the sacrum and coccyx be insufficiently curved, the head may push on through the perineum at the sphincter of the anus, and leave an upper portion intact. Or the head may rapidly distend the perineum above the anal sphincter until a central rupture will occur, and then be made to pass through the vulval orifice without doing any further injury. But the head and body of a child can hardly pass through a central median rupture without involving either the sphincter below or the septum above. Finally, we may have a diffuse submucous laceration, becoming complicated, later, with other varieties.

These, though by no means all, may, I think, be taken as a representation of the usual forms, and methods of occurrence, of perineal lacerations. Prevention, applied to them as a class, would, according to the observations presented, involve two principles:

1. To make the advance of the head slow enough to allow the parts to dilate to their utmost without tearing.

2. To secure sufficient dilatation or relaxation of the vulval and vaginal orifices to bring their axes to correspond with the axis of the parturient canal, so as to enable the head, as it gets beyond the influence of uterine and pelvic directing forces (the amniotic fluid, the pubes, sacrum, coccyx, ligamentous perineum, etc.), to find a directing force in the vulval and vaginal orifices or rings.

In endeavoring to diminish the rapidity of the progress of the head, it is well to take two points into consideration: 1. That uterine action becomes more efficient, as labor advances, on account of the increased length and frequency, rather than the increased force, of the contractions (Schatz). 2. That when the head is capped by the membranous perineum, and therefore is not delivered until it has passed entirely beyond the bony pelvis (figure 3), the uterine contractions have at last almost no direct effect upon its advance, and the abdominal pressure

or straining of the mother becomes the chief propelling force (Schröder).

Hence, if we wish to diminish the propelling power during the passage of the head through the pelvis, we may often with advantage give remedies which will act between the pains to diminish their frequency, such as opium, chloral, etc., yet without very much affecting their force. Chloroform, given only during pains, diminishes their force without much affecting their frequency. Later, when the abdominal muscles are the prime forces, we may regulate the advance of the head by controlling them.

The prevalent practice of accelerating the progress of labor until the head greatly distends the perineum, and then using counter-pressure to keep the vulva from being lacerated, is to deliberately injure the pelvic floor, and then court rupture of the uterus.

Perhaps the best means of securing a normally slow advance of the head is to preserve the pouch of membranes. This may be done by keeping the patient quiet, discouraging all violent bearing down efforts, making but few digital examinations between, and none at all during pains.

Artificial dilatation of the vulval and vaginal orifices has been advocated by Ernest Trestrail (1875), Mossman (1880), Alex. Duke (1883), and Alfred Carr (1883). Latterly, Professor Leon Dumas has developed a very efficient method of digital dilatation of these orifices, and has practiced it with gratifying results (*Montpellier Médical*, August, 1883,—"Dilatation Præ-fœtale de la Vulve"). In my own practice I utilize the pouch of membranes for this purpose also. The vulval and vaginal orifices, being relaxed and everted, are, in most normal cases, less resisting to the pouch than was the os uteri. After being dilated by the pouch, they allow of the rapid passage of the head, thus shortening, and greatly lessening, the usual anguish of the last moments of labor; and reversing the fashionable mode of hurrying up the second stage to save pain, and then checking the advancing head at the final period of severest suffering.

A comparison of figures 3 and 4 will show that when the bag of waters persists, the perineal rings are better prepared for the delivery of the head while the forehead is still on the sacrum, than they are after the chin has passed the coccyx, in those cases where the membranes have been ruptured at the end of the first stage. Besides this, the head has a third less distance to travel during the second stage until born, and thus takes a third less time at a given rate of advance.

In thus advocating a bringing down of the fourchette, I only seek for an imitation, in all cases, of the mechanism that sometimes occurs in young primiparæ, and often in multiparæ, where the vulval and vaginal outlets are normally, and therefore greatly, relaxed; and where neither pouch presents nor fingers interfere. There is much less work either for the pouch, if left alone, or the fingers, if *properly* used, than is generally supposed. But that little work is often of prime importance.

3100 Forest Ave.

A PLEA IN BEHALF OF A NAVAL HOSPITAL FOR INEBRIATES.[1]

BY FREDERICK HORNER, M.D.,
OF MARSHALL, VIRGINIA.

In this paper it is proposed to discuss: *First*, the history and origin of hospitals for inebriates; *Secondly*, the presentation of facts to prove that inebriety is a disease; *Thirdly*, the value and results of institutional treatment; and *Fourthly*, the present necessity of a special hospital for the treatment of inebriates of the Navy.

First.—Dr. T. D. Crothers, in a paper read before the London Branch of the British Medical Association, states that "the earliest organized effort in modern times to prevent inebriety was a temperance society which began inNew York State in 1828." I may add that two years previously, in 1826, a like organization was started in Boston. The object of these societies was to aid others in pledging themselves to abstain from the use of all intoxicants, and to help each other to carry out this resolution. The Washington societies began in 1840; this movement was greatly promoted by the labors of Father Mathew, an Irish prelate, by Mr. Gough, and Neal Dow, who gave to us the Maine liquor law. Subsequently friends and Sons of Temperance carried on this great work, and since the late civil war the Gospel Temperance and Good Templar societies, perfecting the system which at present embraces the social, moral and religious elements of man's nature. The need is for these classes fully to comprehend the fact that inebriety is a true disease —a widespread epidemic—and to be successfully treated comes within the domain of preventive medicine, and to be relieved and cured must be submitted to the treatment of special and fully enlightened physicians. In the exhaustive address of Dr. Crothers, he adds that "the first period, the rational or scientific epoch, began in 1790, when Dr. Rush, a distinguished physician of Philadelphia, urged that inebriety was a disease and should be studied as such; a physiological and not a moral condition. In Europe this theory was taken up and made the subject of several papers which have become historical."

In 1852, Dr. I. Edward Turner projected the first asylum for the medical care and treatment of inebriates. A new era dawned when the labors of this great philanthropist culminated in the opening of the New York State Hospital. During its brief existence of fourteen years 2,344 inebriates were treated. This enterprise attracted the attention of the world, and clearly demonstrated the disease of inebriety and its curability. In 1859 a similar hospital was begun in Boston, now known as the famous Washingtonian Home, with Dr. Albert Day as Superintendent. During the twenty-five years of its existence almost 8,000 patients have been cared for, "some of whom are now heard from, now honored citizens and performing well the duties of life." During fifteen years the Binghamton Asylum received 7,000 patients for treatment, and from the study of over 2,000 cases five years after the period of treatment in the asy-

[1] Read before the Naval Medical Society.

lum, sixty-two per centum were found to be temperate and sober. There are thirty asylums for the treatment of inebriates in America. Some of them are small and empirical in their theories, and many of them are broadly scientific in plans and appliances; one of the largest is for women, and when completed will contain 300 rooms. The late Dr. J. Marion Sims was President of this institution, which is located in Connecticut. All of these asylums, remarks Dr. Crothers in the Report from which these details are quoted, "suffer from want of legal aid to restrain fully such cases, though everywhere these asylums are building up public sentiment in the direction of physical means and methods of treatment. The first effort to study the facts, as they appeared from a scientific inquiry began in 1870 in the organization of the American Association for the Cure of Inebriates. This Association is composed of physicians who accept the general principle that inebriety is a disease, and is curable as other diseases are. To this end asylums are essential, or special quarantine stations where the victim can be housed and receive exact physical care, until the causes are removed and the patient restored—the victim himself being held responsible, like the small-pox patient, to use every means for recovering."

Legal enactments in Europe and in this country have been passed, giving full control over the inebriate—the most advanced of which are in the State of Connecticut and in New South Wales. Of the thirty asylums in the United States established during the past quarter of a century, twenty-six survive. The necessity of hospital treatment for inebriety is thus established beyond all question. Public sentiment is enlightened, and under the inspiration of a Christian civilization over a thousand temperance coffee and lodging rooms and Sailors' Homes where no liquor is sold have been opened in this country. By these efforts, they recognize the value of physical aid, the necessity of food and rest in order to restore the diseased will. The Women's Christian Union maintains most of these places. In these Homes, the value of a single day's restraint, with good food and quiet rest, is seen in the help to overcome the diseased appetite. They are literally the first efforts of the masses to treat inebriety by rational means, and the beginning of a great movement to establish hospitals for all.

Secondly: the presentation of facts to prove that inebriety is a disease.—The writings of the ancient Greeks and Romans sustain this proposition. Herodotus wrote that "drunkenness showed that both the body and soul were sick, and had destroyed many kings and noble people." The Greeks enacted laws forbidding women to use wine. In the writings of the thirteenth century drunkenness and madness were mentioned as synonymous terms. In 1747 Condillac, a French author, declared that the State should recognize and provide means for its treatment, "since the impulse to drink was, like insanity, an affection of the brain." In 1790, Dr. Benjamin Rush sustained this theory by a long train of reasoning. He divided the disease into acute and chronic forms, giving many of the causes, among which heredity was prominent, and urged that special measures be taken in the treatment, and in a hospital for the purpose. In 1802, Dr. Cabanis, of Paris, wrote "that inebriety, like insanity, was a distinct form of mental disorder needing medical care," an opinion sustained also by Prof. Platner, of Leipzig, who claimed that the insane impulse of the drunkard ought to be studied by the light of science. Esquirol, in 1818, described a condition of the nervous system in which inebriety was sure to follow.

To two eminent American physicians, Albert Day and T. D. Crothers, may be awarded the credit of establishing beyond all questioning the facts to prove that inebriety is a disease. In a paper, "Inebriety and its Cure," read by Dr. Day before the Suffolk District Society, he says: Dipsomania is a term applied to a peculiar form of insanity, designating that uncontrollable impulse towards the use of intoxicating liquors which is felt by some persons at certain periods, and contradistinguished from the craving thirst of the daily moderate drinker. *Alcoholism* is the name of all diseases in any way found to be due to the use of alcohol, and applies to the collective symptoms of a disordered condition of the mental, moral and sensory functions of the nervous system; these symptoms, according to Dr. Magnus Huss, of Stockholm, in his work on "Alcoholism," may assume a chronic form, and without being immediately connected with any organic manifestations of the central or peripheric portions of the nervous system which may be detected during life or discovered after death by ocular inspection. Dr. Crothers claims that "all the symptoms of inebriety are incidental to the toxic effects of alcohol, marked by psychical and pathological changes, and the inability of the patient to cease the use of spirits is because of the nerve degeneration which has occurred; then follow functional and organic disturbances. From hereditary causes there may be also further proofs of a defective organism; that inebriety is an inherited disease can be clearly proved. The poorer classes, from lack of suitable nutriment, resort to stimulants, while the more wealthy from continuous excess develop nutrient degenerations. The over mental work and sedentary habits of literary men of unstable mental organization, disordered emotional faculties and unbalanced nutritive functions, constituting the inebriate diathesis, sometimes prove to be causes affecting injuriously the offspring and predisposing to inebriety. The organic degenerations are marked by anæmia, neuralgia, and a sudden insane impulse for intoxicants.

As inebriety comes on by degrees, the physical condition of the victims of the disease is of great significance. The shock arising from injury of the brain or spinal cord by a blow or fall, *coup de soleil*, railroad accident, from the effects of lightning, or reverse of circumstances followed by neurasthenia and ill-health, if treated with alcohol, may develop the symptoms of acute and even chronic inebriety. The religious revivalist, the disappointed student, and the business man who fails, are examples of the classes of mankind who become victims of this disease—a

disease traceable often to conditions of exhaustion of the brain. Dyspepsia, which disturbs the nutritive functions of the body, is a predisposing cause, and induces a condition happily designated by that profound expounder of this subject, Dr. Crothers, "psychical traumatism," in which the brain and nervous system have lost some power of restoration by which their integrity is preserved, and take on conditions favorable to the development of inebriety. At first alcohol is used for its sedative property; second, to relieve the pain of neuralgia or gastralgia. Hence the world-wide resort to "bitters," so lauded by empirics.

Among the predisposing causes may be cited bad influences in the early training of the young. Like many other diseases, it is more prevalent at certain periods of life—that of puberty is full of danger. It appears, according to Dr. Mason's statistics of 250 cases, most frequently in ages from 15 to 25 and from 30 to 35 years. The craving or desire for spirits is periodical with some individuals. A seaman, Noah-like, thus suffers when his cruise or voyage ends; this class sometimes lose all consciousness of right and wrong and have no control over the actions of the mind or body, and become insane or criminal. Firemen and night workers soon become inebriates. Dr. Day, in his Report of the Washingtonian Home, 1884, says "the inebriated man appears to act the part of one deranged in intellect, body and mind alike suffer, and a hideous list of nervous failings prey upon his shattered frame and prove fatal in the end." He adds that "the public must look to the medical profession for proofs that inebriety is a disease and is largely the outcome of physical injury. It begets various forms of insanity, transmits to progeny a defective brain and an ever-present anæsthesia, wherein the coördinating structures are impaired in substance or in function by the intervention of hyperplasia, excessive cell formation of the interstitial tissue, the unoccupied spaces between the molecules. A brain so injured ministers to moral incapacity, ending in a morally depraved character. Criminals by birth, though they may never drink, they are thieves and perjurers; and, alas, it may be asserted that the whole race of man now, with few exceptions, by the drinking habit and the abuse of the liquor traffic, is tainted with alcoholic disease from which come poverty, disease, crime, and the most burdensome taxation. Inebriety is a foul disease, more destructive to human life than all other diseases combined, enslaving mankind in bondage second only to what Satan achieved for Adam's race in Eden." Dr. Frederick C. Shattuck says "the high mortality of acute pneumonia in the intemperate is no new observation, but the facts would seem to show that alcoholic excess is not only an important factor in determining the issue of this disease, but that it is often of itself the actual cause of it. Thus it is that pneumonia owning this origin is at all ages the most fatal form of the disease known to us."

Professor Christison, of Edinburgh, declares: "I recognize certain diseases which originate in the vice of drunkenness alone, which are delirium tremens, cirrhosis of the liver, many cases of Bright's disease of the kidneys, and the dipsomania of insane drunkenness, and also other diseases in regard to which excess in intoxicants acts as a powerful predisposing cause, such as gout, gravel, aneurism, apoplexy, epilepso, cystitis, erysipelas, spreading cellular inflammation, tendencies of wounds and sores to gangrene, and inability to resist the diseases at large." In examples of epidemic continued fevers he had known but a single case of an intemperate man of 40 and upwards to recover. Four-fifths of his cases of Bright's disease were produced by alcohol. All practicing physicians who have treated epidemic cholera or yellow fever know that the maximum mortality occurs to the intemperate classes of society.

Dr. C. Murchison, the author of an excellent treatise on "Continued Fevers in Great Britain," says: "A single act of intoxication or debauch predisposes to typhus;" adding that there is no greater error than to imagine that a liberal allowance of alcoholic stimulants fortifies the system against contagious diseases. In Dr. Murchison's "Lectures on Functional Diseases of the Liver" before the Royal College of Physicians in London, it is asserted that the prevalence of beer and spirit drinking and consequent liver clogging accounts for the widespread use of countless forms of patent medicines. These are all of a purgative character, and give temporary relief to the overwrought liver, but help to shorten life.

Dr. Norman Kerr, in the discussion of diseases due to the abuse of alcohol, states that probably sixty per centum of the cases of erysipelas were occasioned by it. The use of beer produces a species of degeneration of all the organism—fatty deposits, diminished circulation, congestion of the viscera and local inflammation of both the liver and kidneys. Intellectually sometimes a stupor amounting to paralysis, and arrest of the reason, changing all the higher faculties into mere animalism, selfish and sluggish, varied only by paroxysms of anger that are brutal. Its constant use gives the body no recuperation, but steadily lowers the vital forces. It has been remarked that the most dangerous class of ruffians in our large cities are beer drinkers. Hence the conclusion that inebriety leads to criminal acts is undoubtedly true.

Dr. B. W. Richardson said before the Edinburgh Society of Arts: "Alcohol, instead of raising, lowers the temperature of the body. After a drunken stupor it takes three days to restore the natural warmth. The development of fat from its use is simply due to structural degeneration of the vital organs. Hence alcohol is not in a proper sense a food. It accelerates the action of the heart from 100,000 to 125,000, followed by a proportionate weakness. The heart becomes enlarged and its valves disordered, and the brain, by the increased flow of blood to it, is rendered for the time more active and is succeeded by greater feebleness, which demands the repetition of the stimulus. Among the effects of deterioration in those who drink moderately are various neuralgic pains, the worst form of indigestion, and wakefulness. At a later stage of drunkenness, not a single organ of the body escapes disorganization of its vital structure, though heredity or other conditions may cause a seeming concentra-

tion on a particular organ—the liver, the kidney, the lungs, the heart, brain or spinal cord." This author concludes that if any form of alcohol do really for the moment cheer the weary and impart a flush of transient pleasure to one who craves for mirth, its influence, an infinitesimal advantage, is obtained by the side often of an infinity of evil for which there is no compensation, if a cure. The proofs thus furnished by the writings of the most eminent medical authorities, that inebriety is a disease, and also productive of other diseases, may be summed up in the utterances of Dr. Joseph Parish, that it cannot be denied that, 1, it is a disease, and with specific symptoms; 2, there is a condition of the nervous system with which some men are born that predisposes them to alcoholic indulgence. Hence the inebriate must be treated as other diseased human beings, and not ostracized by society and branded as a criminal, and be driven an outcast beyond the pale of human sympathy. In his behalf the laws of hygiene must be taught in their highest sense, and a curative and humane treatment be adopted.

These opinions are also ably maintained by Dr. Albert Day, who declares that "the inheritance of inebriety follows the same laws as other nervous diseases, a predisposing cause being a civilization at the present day demanding a great expenditure of nerve force and brain work, while among the exciting causes are alcohol, opiates and chloral, which, by acting in a secondary manner upon a low nerve power, produce the diseased condition known as dipsomania. The disease never exhibits itself till alcohol has been consumed, resulting in the poison of the blood and the arrest of the healthy operation of the nervous system. It attacks the higher faculties, dethrones the reason, retrogrades its victim to a level with the brute, and in its chronic form is inducive of mania-a-potu, epilepsy and insanity. If cholera and other plagues have slain their thousands, inebriety annually destroys its ten thousands. The whole subject embraced within this division of my topic comes within the domain of *preventive medicine* as clearly as any single one of the zymotic diseases, and so soon as the medical profession will direct their attention to its recognition, prevention and cure, will mankind be freed from the most dire scourge which can afflict the human race.

Thirdly: The value and results of institutional treatment.—On this part of my subject I regard the testimony of Dr. Albert Day as furnishing an unanswerable argument in favor of the value and success of institutional treatment, as tried during the past twenty-eight years at the Washingtonian Home. Dr. Day, in his Report for 1885, says that one of the earliest results of hospital treatment was the discovery that inebriety is a disease rather than a vice proceeding from the creation of an artificial appetite, and it never exhibits itself until alcohol has been consumed. Dr. Day has treated over 10,000 cases, and by statistics demonstrates that asylums, properly conducted, are an actual saving to the State in dollars and cents. The instances of relapses have been less than is generally supposed. This method has at least proved to be the best yet discovered to ensure a complete and permanent cure for reforming the evil. The victim is thereby withdrawn from associations of temptation, is received with kindness, and having first expelled the evil within him, is reawakened to self-respect, and after a time is restored to the community with a sound mind in a sound body, and becomes again an active worker in the great human hive—useful to himself and a source of happiness to his friends. This eminent physician and philanthropist adds that in the treatment of his patients he aims to promote in them true virtue, total abstinence and true piety, to stimulate their own exertions for a better knowledge of God and His laws, and for a determined self control. In this era of practical atheism and morbid materialism among a certain class of physicians, the sentiment expressive of faith in God and His word which Dr. Day commends to his patients is deserving of praise, since the true physician has ever to remember that he is only the honored instrument of a superior power in relieving maladies of the body or mind; and, after all, it is only "God who healeth our diseases." It can readily be proved that all attempts to treat successfully and to cure inebriety in civil practice or on board ship have failed. While due prominence has already been given in this paper to the treatment of the inebriate in an asylum, and full concession made to the wisdom of those who have advocated institutional treatment and yet deny that there is any vice connected with the disease, which is called inebriety, we are instructed to the contrary plainly by the teachings of the Bible. This sacred book declares that drunkenness is a sin so offensive to the Diety that by Hebrew law the victim was stoned to death, and under the new testament, or Gospel, dispensation, such an offender will at death be deprived of the joys of Heaven. Hence, as Christian physicians bearing the mantle of the great Physician who alone delegates to us the wisdom and force to heal the drunkard's bodily ailment, we can, also, present to his heart and conscience the consolations of the Christian religion. Thereby we strive to lift him to a higher life and remind him of the solemn warning which the Bible conveys, that "no drunkard shall enter the kingdom of heaven."

Fourthly: The present necessity of a Special Hospital for the treatment of inebriates of the Navy.—In a late letter received from Dr. Albert Day, he says: "It seems to me fortunate that you are to present the subject of institutional treatment for the unfortunate victims of inebriety in our Army and Navy. A large number of men have come under my care during the past thirty years, and in all respects from inebriety they are the best and most intelligent in the service. Should the Government establish such an institution we should hear less of insubordination, disgraceful conduct and self-destruction. Under proper asylum treatment a large per centage of these men could be saved to the service and their families." He adds: "I have been engaged in this work nearly thirty years and I am approaching the end. I can truly say that I am more

satisfied with the results of my life's labor than I at the first anticipated. But the work has been a success. I often meet persons rescued from the most degraded form of intemperance; they are now worthy and honored citizens, who can date their cure back to twenty or more years."

It required three quarters of a century before naval authorities established a hospital for the insane of the public service. The suggestion first made by that great philanthropist, Miss Dix, was successfully carried into effect in 1858 by Dr. Charles H. Nichols. There can be no question from the facts presented in this paper, that for nearly thirty years the experiment of hospitals for inebriates in nearly every State in the Union has been successfully demonstrated in this country as well as in Europe. The Naval Surgeon should, in the practice of *preventive medicine*, be convinced that the disease inebriety, occurring in the line of duty to officers or seamen, should have the benefit of special treatment in a hospital instituted for this special disease. The Annual Report of the Surgeon-General of the Navy notices a certain number of cases of acute and chronic alcoholism, and of delirium tremens, say one-fifth, rightly included under the head of "Poisons," as occurring in the various squadrons at home and abroad, at the navy yards and in naval hospitals. Among this number there must be cases discharged uncured. In the North Atlantic Squadron, under the head of "Poisons," which includes acute alcoholism, *vulnus venatum*, *colica pictonum*, etc., the ratio per 1000 of this class is set down in the Report as 10. In the European Squadron, under the head of "Poisons," 17 per 1000 is the number given; 13 admitted, 12 discharged and 1 invalided. The Report concerning the sanitary condition of the various hospitals also furnishes examples of acute and chronic alcoholism and ebriositas; 31 cases admitted, 30 discharged, and 1 invalided. Such facts are suggestive that, whatever precautions may be adopted by the medical staff of the Navy to eliminate inebriety from the public service, the experiment has failed. The attempt at treatment on board ship, as in civil practice, has also failed, but not so has institutional treatment.

Already the naval surgeon has won an advanced position in the departments of sanitary science and of preventive medicine; indeed, he is fully qualified to discharge all professional duties as a surgeon and physician according to all the light which medical and surgical science has reflected upon the human mind. Hence the query, will he not be derelict to fail to apply the most enlightened medical and institutional treatment to an inebriate on board ship, as well as in a special hospital, rather than to furnish testimony before a court of inquiry or a court martial as a witness, thereby ensuring the summary disgrace or expulsion from the public service for drunkenness of an efficient officer or a valuable seaman? The latter cruel and, in many instances, unjust method was practiced prior to 1859, though it can not be sanctioned at present. In one case, of which the writer was cognizant, the greatest wrong was inflicted upon a talented and efficient naval officer, whose valuable services saved a sloop-of-war, with her crew, from shipwreck. His exposure to a tropical sun, in an open boat, to discover a safe channel for the escape of the vessel, was of course the occasion of great mental strain. On returning to the United States subsequently, can there be any surprise that this officer in an evil hour was tempted to acts of intemperance? And yet the decision of a court martial convicted him of drunkenness, and sent him into the world a disgraced and ruined man.

Finally, the suggestion may be ventured that, at least, one of the various Naval Hospitals now appropriated for the treatment of the sick and wounded might be judiciously set apart for the special care, relief and cure of the unfortunate victims of inebriety of the Americal Naval Service.

A NEW CLOTHING CASE FOR THE SOLDIER.

BY W. THORNTON PARKER, M.D.,

OF NEWPORT, R. I.; LATE ASSISTANT SURGEON U. S. ARMY.

The science of medicine has for its purpose not only the cure of disease, but, infinitely more important, the prevention of sickness and of suffering. Students of the medical profession—and, as long as we are faithful to our calling, we who are known as medical doctors must also be students—investigate matters pertaining to prevention and cure in every direction. To one the ability is given to contribute books of instruction; to another records for reference; to others instruments for operative surgery, instruments for diagnosis, appliances for deformities, apparatus for the relief of the injured, appliances to protect against deadly pestilence, and the simpler articles to aid in general hygiene. There are many workers, and much material offered for inspection which must prove worthless and useless. From the great gathering of the efforts of thousands some things prove of value and are accepted and are permitted to do useful and honorable service. All cannot be utilized. Some things must be rejected, but the faithful worker brings his offering to the profession and patiently waits the verdict of his peers and of his seniors.

The experience which was won by the dreadful War of the Rebellion in this country has had its good effects all over the world. The lessons learned by our medical officers and sanitarians have been made use of in every war since, and the valuable records are stored ready for future instruction. The study of military hygiene is of the utmost importance. The preservation of the health of the soldier, with a view to increasing his effectiveness and diminish the causes which weaken, injure and invalid him, are worthy of the most careful study, investigation and experiment. The poetical and romantic in uniform and ceremony must fall before the searching analysis of the practical question. All that relates to the soldier, his food, clothing, camp, arms, recreations, duties, physical condition, morality, all these and many more must interest those who have the soldier's real and lasting welfare at heart. The soldier, to be effective as a fighting man, must be able to go on the

battle-field in a condition of strength and general "smartness." The valuable property of the soldier, called "*esprit de corps*," must suffer very decidedly when the body is exhausted and when the "mob action" is seen on every side.

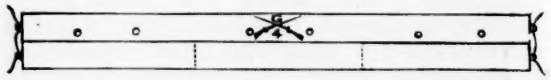
It is the purpose of this paper to treat of only one detail in the soldier's make-up, and although that may seem to the general observer unimportant, a more important subject could hardly be considered. It was the experience of many army officers, during the War of the Rebellion in the United States, that soldiers, although provided with the best knapsacks which could be manufactured, invariably threw them away upon long marches, together with the clothing contained in them, rather than endure the fearful physical suffering which resulted from carrying them. Those who were determined to save some extra clothing did so by wrapping it up in the rolled blanket or overcoat, which they wore over the left shoulder. During the Franco-Prussian war many regiments transported their extras wrapped in blankets or overcoats and worn swung over the left shoulder. The ends of the overcoat or blanket were secured by straps or cords at the right side. The right arm and shoulder would therefore remain free for the carrying of the rifle, and easy movement for loading, aiming, firing, charging, and other exercises of the soldier could all be promptly executed. The different forms of knapsacks which I have examined, although remarkably similar in appearance in the German, Austrian, French, English, Dutch, Italian, Swiss and American armies, are clumsy, heavy, and too fatiguing for the soldier's use in peace, even, much less useful in time of war. The necessity for the easy transportation of the soldier's kit by the soldier is often of the greatest importance when in actual warfare and liably to long marches, especially when the quartermaster's train has failed, or when the rapid movement of armies is necessary, without the aid of wagons and horses.

The knapsack is especially undesirable because its straps draw heavily against the muscles used in respiration. The tugging of pack impedes the act of respiration very greatly, especially when the body is fatigued. The oppression caused by the weight of the knapsack, and its interference with normal breathing, is so great that I have seen soldiers faint away and even fall in ranks at Sunday morning inspection, after carrying the knapsack only a short time. The distress from the weight of the knapsack often causes a large per cent. of stragglers and sick men before the troops even reach the battle-field. An army is thereby deprived of many men of excellent courage and intelligence who would, by their presence, have aided much in action towards the general success, but whose physical resources were not equal to the dreadful pack on their backs. The pressure and contact of the knapsack heats and weakens that portion of the body against which it rests, and after reaching camp or a halt its removal exposes the soldier to additional chances of taking cold.

Any one who has witnessed the departure of troops for the war, in what is called *heavy* marching order, must have noticed countless men already nearly tired out, struggling to keep up appearances and bear, in a soldierly way, their "pack." It was an easy matter to estimate how many, from the weight of the knapsack, must soon break down and become useless as fighting men.

To remedy some of the defects and dangers which we have been considering, I have devised a "Marching Clothing Case," which very many of the officers of the United States Army, and also officers of the Army of the Union during the war, have examined and highly approved of. The Newport Medical Society, at the regular monthly meeting held December 2d, formally approved of this Case, and have recommended it to all army boards for use, instead of the knapsack.

The Case is made of light canvas or waterproof cloth, and when completed it weighs but a fraction of the weight of the average knapsack. It is manufactured as follows:



A strip of cloth four feet long, or four feet six inches is a better length, by sixteen inches wide, is folded to make a pocket six or eight inches deep. This is done by making the covering flap lengthwise, and dividing it into three pockets by a few stitches across at a third of its length, making three equal divisions. Six buttons hold the flap in place. Loops at either end enable the soldier to wear it secured at the ends without its being rolled in blanket or overcoat. This Case will hold one pair of drawers, two flannel shirts, two pairs of stockings, towels and other extra pieces of clothing, and the "soldier's book."

It is useful in that it can be worn for days without giving fatigue, and the weight is so evenly distributed that the soldier does not suffer from carrying it or feel disposed to throw it away. Upon reaching camp the blanket can be unrolled and the Case hung up or thrown in the corner, the clothing remaining in the Case clean and undisturbed. When the clothing is rolled loosely in the blanket, upon reaching camp the blanket is needed and the contents are likely to be scattered about the tent and soiled or ruined with mud and rain.

This Clothing Case does away with the necessity for knapsack or clothing bag, and can be manufactured easily and quickly, and at a trifling expense compared with the cost for the manufacture of knapsacks. No clothing case could be more easily carried than one suspended from the shoulder. It can be used at all times, even in action, and would then offer considerable protection of the vital organs against musket balls.

It is intended that this Case be worn in the rolled blanket or overcoat suspended from the left shoulder, giving the right arm full play and allowing, as we have seen, the utmost freedom in the performance of the most important exercises of the manual of arms.

Newport, R. I., December, 1885.

MEDICAL PROGRESS.

Stretching the Sphincter Ani.—At the close of a recent lecture on the "Surgery of the Male Peniæum" Mr. C. G. Wheelhouse said that by London Surgeons, as a rule, the operation of "stretching the sphincter" is neither recognised, nor taught, nor appreciated; indeed, I have heard of its being scouted, as unsurgical and unnecessary. Introduced into Leeds by the late Mr. Teale, the practice of "stretching," in preference to "cutting," the sphincter has been upheld for twenty-five years at least, and of late years has rather grown than declined in your favor. The principle upon which it is based is, of course, the one formulated and eloquently preached by the late Mr. Hilton, that the true cure for parts suffering from irritation is to place them physiologically at rest; and the ground upon which we prefer it is, that by it we can attain our end without causing an external wound, and thereby rendering our patient liable to septic poisoning.

Consider, for a moment, the position and office of the sphincter, to guard the rectum from the involuntary discharge or escape of its contents. This, so long as the rectum is at peace, it is capable of effecting easily, perfectly, and without strain, and its ordinary action is neither violent, nor spasmodic, nor irritable. But suppose some sort of irritation to have arisen in the bowel—acute diarrhœa, chronic ulceration, fissure, fistula, or piles—and what will be the state of the sphincter then? In direct proportion to the amount or of the duration of the continuance of the disease, it will become hypertrophied and strengthened to enable it to maintain its power and its office, and, in time, it comes to be enormously more powerful than is natural, or, were the parts in a healthy condition, necessary.

Piles, supposing them to be the cause of the irritation, are perpetually tending to protrusion, and are ceaselessly warring with the muscle; from time to time, when the fæces are passed, the piles are protruded with them, remaining after defæcation in the grasp of the sphincter; they are crushed, and bruised, and become inflamed and painful; and even though they be released from their imprisonment, as they usually are, by the patient, and are returned into the bowel, it is only to continue there the war with the sphincter and to prolong the agony. Or, suppose that a painful ulcer or fissure exists within the margin of the anus, and immediately within the anus is their most common seat, what will then be the state of affairs? The discharge from an ulcer or from fissures cannot get away, the sphincter will not permit it to do so; it accumulates and irritates the muscle, this retaliates by increased contraction, and thus the war goes on, to the infinite disadvantage of both parties concerned; the ulcer spreads, the fissure deepens, and the sphincter hypertrophies.

Sometimes, in the case of fistulæ, matters do not become quite so accentuated or acute, for the matter finds a vent in the perinæum, beyond the range of the action of the sphincter, and the direct irritation to the muscle is so much the less; but in one and all these cases alike, you will have been, or you will be taught, and every text-book you read will reiterate the fact that, for their cure, you may do whatever you will, but you will not succeed until you have put the sphincter at rest, and you are invariably assured that its division with the knife is the only way to do it.

Now this is the point which we in Leeds contest. We assert, and we assert it upon abundant practical experience, that careful, deliberate, and efficient stretching will do all that incision will do, and, doing it without causing any external wound, will subject the patient to far less risk than is possible by incision. Some of you may smile at the idea of there being any risk in so simple an operation as division of the sphincter, but there are such things as accidents; Sir James Paget has most appropriately termed them "catastrophies of surgery," which ought never to be forgotten and should be avoided, where possible, by any amount of foresight on the part of the surgeon. One such, in connection with the subject under consideration, happened to me in my early days; and, so profound was the impression it made upon me, that to forget it even now is quite impossible. For a painful fissure of the anus, I passed a bistoury along its track, divided its indurated base, and, with that, the resisting sphincter underlying it; but in less than a week my patient, the father of a young family, was dead, having very speedily after the operation been attacked with acute and fatal septicæmia. By stretching in preference to cutting, we have it in our power to avoid this risk, at any rate; and, in my experience, the best method of doing it, where possible, is with the fingers, or if need be, the thumbs alone. Let the patient be placed fully under the influence of either, and then, according to the amount of the hypertrophy, or the degree of resistance in the sphincter, dilate it steadily, either with the fingers, or with some appropriate instrument, until you have overcome all undue resistance, and can leave the anus soft, patulous, and free from irritable tension.

I have heard the question carefully discussed, as to whether the digital or the instrumental method of dilatation is the best. Personally I prefer the digital, because, my object being to tear so much of the muscle across (the mucous membrane over it remaining intact) as shall be sufficient to diminish, without destroying its whole power, I can, when my fingers are the instrument used, feel with them when I have done what I wish, and I need do no more. But so great is the hypertrophy sometimes, that the fingers, even of the strongest hands, are quite inadequate to the task of overcoming it. In such cases I usually dilate steadily first with the instrument till I can withdraw it (wide open) with freedom and without resistance; or, with a tenotomy knife, I divide subcutaneously a given proportion of the hypertrophied muscle; and after that I carry on, where it is necessary, any further dilatation with my fingers.—*British Medical Journal*, Feb. 6, 1886.

A Danger in House Sanitation.—The space underneath the floors in dwellings, between the flooring and ceiling of the room below, is a part of the house which receives very little attention from the

householder who may pass a considerable amount of time above it. Because it is not of much thought, it does not follow that it is not an important object for consideration. On the contrary it may become of prime importance in the health preserving qualities of a house.

In most houses, there is no attempt made to fill this space. The floor is laid on top of the joists, and the lath and plaster is put on the bottom, leaving a long open space between joists, connecting with the space between the studdings and the sides of the building. This free connection is almost universal, and is objectionable in every case. It permits a free circulation of cellar air all over the system of partitions and assists its general dissemination into the atmosphere of the house. It creates an uninterrupted passageway for rats, mice, and other vermin, which often make themselves objectionable, to say the least. In case a fire starts in the lower portion of the house from an overheated flue, or other cause, these open passageways offer avenues for the spread of the flames so that before any manifestation of its presence is made, it is far beyond control.

These are the most patent objections to the open-spaced floors, as constructed in many houses. There are others which are more powerful than those recited, which will become perfectly apparent when attention is called to them. In houses constructed with open spaces there is an inviting place for dust, dirt, and other impurities to collect, by constant sweeping, scrubbing, and the friction of many feet. The modern sanitarian is educated to believe that wherever there is dirt there is danger. The constant presence of germs in decomposing animal and vegetable matter, makes the presence of this collection of dirt quite to be feared.

Another source of danger is the filling, or deadening, as it is sometimes called, which is used to fill up these spaces when anything is used. Manifestly, it should be nothing of a decomposable nature, or a medium which could afford a harbor for vermin.

The constant reappearance of a disease in a house or in a room, may be connected with this harbor of refuge for germs beneath the floors. These spaces are seldom the recipients of pure air which would oxidize impurities, nor are they much affected by any ordinary disinfecting process. It may be urged, then, that all floor-spaces be filled carefully, and when filled, it be with some such material as asbestos, mineral wool, or other matter not apt to become dangerous either from its own decomposition or by the reception of decomposable material.—*The Sanitary News*, January, 30, 1886.

DRY DRESSINGS FOR INTERNAL CAVITIES.—DR. CHARLES F. HUTCHINSON, of Scarborough, says in a note on this subject: Dry dressings being now all the fashion, and to my mind most justly so, I wish to draw the attention of the profession to a very simple method of applying, in the dry state, dressings, styptics, etc., to such cavities as the vagina, uterus, and rectum.

The only apparatus required is a hollow cacao-butter suppository, which suppositories are made in various sizes, the largest of which will just about hold one drachm of any ordinary powder. These hollow suppositories are filled with the powder that may be wished to be used as a dressing; the small lid, after being gently heated, is put on; this when cool remains fixed, and the whole apparatus is then ready to be introduced into the vagina or rectum. The heat of the body soon melts the cacao butter, and the powder is then brought, in as dry a state as possible, into direct contact with the parts. During the last six months I have used these suppositories most freely, and have been more than satisfied with the result. I have tried all sorts of powders, and as the result of my own experience strongly recommend the following, either alone or in various combinations as required.

Firstly, as a styptic I most strongly recommend powdered iron-alum. I generally order one drachm of powdered iron-alum and five grains of iodoform, to be well mixed together, the powder to be inserted into a hollow suppository and used as directed. In the treatment of uterine hæmorrhage I am convinced there is no remedy of more universal application, and none on which I could with greater confidence rely. I have used it in severe hæmorrhage from uterine cancer, bad miscarriage, and in several cases of menorrhagia at the change of life, and it has never yet failed me. All that is required is to introduce the suppository as high as possible into the vagina, and there leave it. It is as easily applied by the nurse as by the doctor, and is in every way perfectly safe and harmless.

Secondly, as a dressing iodoform stands pre-eminent; in fact, I now seldom use anything else. This, when combined with from a quarter to half a grain of morphia, forms by far the best dressing for uterine cancer that I have yet tried.

Thirdly, morphia, either alone, or as I generally now use it, in combination with either or both of the above, is a great aid to the physician and comfort to the patient.

After attention has once been drawn to this simple mode of applying these various applications, the numerous uses to which they might be put in the various vaginal, uterine, and rectal discharges and diseases will occur to all. I have only very briefly ventured to suggest the use of those in my own hands I have found deserving of confidence. I have no doubt that hundreds of the profession are at present using this mode of dressing; but, on the other hand, I know that there are hundreds who are not, and it is to persuade those who have not yet tried them that I venture to bring this subject forward.—*The Lancet*, February 15, 1886.

THE USES OF A FIVE PER CENT. SOLUTION OF BRUCINE.—In a note on this subject DR. RALPH W. ZEISS, of Philadelphia, says that he has arrived at the following conclusions from experiments with a five per cent. solution of brucine:

1. I have twice applied the solution, by means of a tuft of cotton on a cotton-holder, to painful *furuncles* of the external auditory canal. In both cases marked relief was noticed in from two to four minutes, which

lasted for some hours, when the pain slowly returned as before. Skin in these cases not broken.

2. In cases of painful *suppurative otitis* of the middle ear (some five or six in all) the solution gave *some* relief in *all* cases; very *marked* relief from pain, lasting for a number of hours, in two cases. In these patients the solution was passed on the cotton tuft down to the fundus of the canal, and the raw and often bleeding surface carefully and thoroughly mopped.

3. I have used the brucine solution some scores of times in *sensitive conditions* of the auditory canal to render the use of instruments painless. No record was kept of these, but in about one-half the cases the patients volunteered the statement, "It don't hurt as much now," while in the other half no results of any importance were obtained, sensitiveness being in no way lessened.

4. Brucine, in my hands, has proved most useful in lessening or entirely abolishing the pain and burning caused by *applications* of iodine, nitrate of silver, sulphate of copper, and the like to the mucous membrane of the throat and nasal passages. I have repeatedly used it in these cases, perhaps nearly fifty times, and in almost every case relief was noticed, and in the majority of the cases pain and irritation were at once overcome.

5. In one or two cases of *burns* the solution has proved valueless.

6. Painted along the line of incision before opening a shallow abscess, it did no good whatever, the patient suffering as much as usual.

7. Used on the external surface of the body, the five per cent. solution has proved of no value whatever in my hands.

Speaking generally, I do not consider the brucine salt equal in its local effects to the muriate of cocaine. Though more lasting, it is much less reliable, nor does it seem to be so readily absorbed.

In some two or three instances, after liberal applications of brucine to the nasal cavities, patients have complained of having felt wildly "nervous" for some hours afterwards, evidently from the strychnine-like effects of the drug. In no other instances were the slightest toxic effects noted, although as much as mv of the solution has been repeatedly used in the middle ear and nasal fossæ.—*Therapeutic Gazette*, Jan. 15, 1886.

Microscopical Examination of Morbid Structures.—The busy practitioner who has but little time to spare for elaborate investigation of diseased structure, says Dr. W. B. Kesteven, and who probably has not the resources of a laboratory at his command, will nevertheless often desire to investigate the minute changes which have resulted from the pathological processes that he has watched to their fatal issue. Too often, indeed, it occurs that prejudice presents an insurmountable bar to the satisfaction of so laudable a curiosity. Another difficulty, moreover, is frequently interposed, under the idea that morbid structures must undergo a process of hardening previously to examination. The plan of hardening, staining, and clearing before mounting for microscopical examination is, however, I suspect, often attended with the alteration of portions of the elementary tissues. The examination of parenchymatous structures, such as liver, kidney, lung, sarcomata, schirrus, etc., can be effected in a few minutes by a ready method, the means of which may be always at hand. A Valentine's knife or a sharp razor will give a sufficiently thin section, which should be placed for two or three minutes in methylin, or aniline blue (not the blue-black). Surplus coloring matter should be washed off in water, and the section is then ready for microscopical examination—if it be desired to preserve the section it can be placed in glycerine, or Farrant's medium. These two staining fluids are valuable agents for the differentiation of structure in tissues prepared in the ready method now described. Cells, nuclei, fibres, and stroma are distinctly marked out. If the aniline, or methylin blue, be not available at the moment, a fairly good substitute may be found in Stephens's blue-black ink. Nervous tissues, such as brain or spinal cord, require for the full and complete examination of local changes that they shall be submitted to the processes of hardening, staining, and clearing, but a tentative, or preliminary examination of the fresh brain may be made by the "handy method" of Dr. Batty Tuke.[1] A small piece of the tissue, of about the size of a pin's head, taken from the supposed morbid portion, should be placed upon a glass slide and pressed down by a thin cover. The cover then being removed, a few drops of "Judson's magenta," or of carmine solution diluted with six or eight times its amount of water, should be mixed up by means of a needle, with the brain tissue and a clean thin cover pressed down upon it, until the substance is so thin as to be translucent. The cells, nuclei, and vessels will take the coloring matter deeply, whilst other structures remain unaffected. Morbid conditions are thereby brought into view—*e. g.*, pigmentary granulation of cells, change of form in nuclei, colloid bodies which refuse the stain, and the imperfectly colored miliary bodies, etc. Having made trials of a large number of staining fluids, the writer has satisfied himself that the two blues above mentioned are the best suited to the ready examination of parenchymatous structure; whilst for sections of hardened brain-substance he has learnt to rely most upon solution of carmine, and next to that upon aniline blue-black.—*Provinc. Med. Jour.*, Jan. 1, 1886.

Changes in the Pupil after Death.—From an interesting series of original observations upon the eyes of recently dead subjects and upon their behavior under certain physiological stimuli, Mr. J. N. Marshall draws the following conclusions:

"(1) In most cases, the pupils are dilated at the time of death, the dilatation usually occurring within a short period of the fatal event. Dilatation at an appreciable time after death is quite exceptional. This condition is essentially paralytic and is independent of the state of the pupil during life, whether that is altered by drugs or by disease.

"(2) There is, in the great majority of cases, progressive contraction of the pupil after death. This varies within wide limits, both as regards its period of commencement and the degree of myosis attained.

[1] British Medical Journal, Sept., 1874.

It usually begins within an hour after death, and continues for the next forty-eight hours. The contraction which is often unequal in the two eyes, is independent of the action of light upon the eye and of the occurrence of rigor mortis.

"(3) The pupil is susceptible to the action of atropine after death, for a period which probably varies with different subjects, but which may be as long as four hours when simple instillation is employed, and perhaps a little longer when the atropine is injected into the anterior chamber. The dilatation begins at about the same time after instillation of the atropine, as it does after instillation during life, but it differs from the dilatation after the latter in that it is of less degree, and that the influence of the atropine passes off sooner and leaves the pupil to follow its usual course.

"(4) The instillation or injection of eserine after death produces contraction of the pupil, but the period after death during which it can act is shorter than in the case of atropine.

"(5) The instillation of ergotine after death has no effect on the pupil, but its injection into the iris or anterior chamber produces contraction of the pupil up to at least two hours after death.

"(6) Pilocarpine injected into the dead eye has a slight myotic action.

"(7) The removal of the aqueous humor after death does not affect the ordinary behavior of the pupil.

"(8) Flaccidity of the iris during life is exceptional, but it is always present after death, and increases from the time of death onward."—*Boston Medical and Surgical Journal*, February 11, 1886.

THE SOURCE OF UREA.—MR. D. W. AITKEN, of Edinburgh, reports the following interesting case:—Early in January, 1886, he was called to see a boy who had, the day previous, received a rather severe blow upon the right lobe of the liver. When seen, he was complaining of much pain in the right hypochondrium. The skin was slightly, and the conjunctiva distinctly, jaundiced. The stools were pale, while the urine was bile-colored, and gave the bile reaction with nitric acid; there was no fever. But herein lies the important matter. The urine was highly alkaline. On the addition of nitric acid, there was such violent effervescence, that the froth was forced out of the test-tube, although the urine was not much more than one inch deep. He got his friend, Dr. Drinkwater, to carefully examine the urine. He reported that the alkalinity was due to ammonium carbonate, and, on estimating the urea, he only found 3 per cent.

This evidence seems to him to point strongly to the liver as the seat of producing of urea. Dr. Graves has already reported several cases of absence of urea which he believed to be represented in the urine by the ammonium carbonate, but here we have a history of the organ involved.—*Brit. Med. Jour.*, Feb. 6, 1886.

A MODIFICATION OF FEHLING'S TEST.—BUCHNER has proposed the following modification of Fehling's method for sugar. Many saccharine urines only give an opalescent yellowish-red coloration, and no red precipitate of cuprous oxide, when heated with Fehling's solution, making therefore the presence of sugar appear doubtful. In such cases, the urine is to be boiled with excess of cupric sulphate solution (1:10). The greyish-green precipitate is to be separated, and potassic hydrate, or some Fehling's solution, to be added to the filtrate, on boiling which the red suboxide of copper will be deposited, if even a small proportion of sugar be present.—*London Medical Record*, January 15, 1886.

PAINLESS OPERATIONS FOR PHIMOSIS.—DR. W. ROUNDS BARNES, of Binghamton, N. Y., writes that he performed circumcision upon a man 42 years of age, after having previously applied a four per cent. solution of cocaine for twelve minutes to both surfaces of the prepuce along the proposed line of incision. The patient himself rendered good service in wiping away the blood, and in holding the mucous and cutaneous surfaces together while the sutures were inserted. The hæmorrhage was very slight until sensation returned, which was not until the last suture was being put in. The patient remarked at that time that that was the first pain he had felt. The operation occupied thirteen minutes.—*The Medical Record*, February 27, 1886.

HYPONE AS AN ADJUVANT TO CHLOROFORM.—M. DUBOIS (*Revue Médicale Française et Étrangère*, Jan. 16, 1886,) states that, when a hypodermic injection of a sixth of a grain of hypnone has been given to a dog, the animal can be anæsthetized by making it breathe air containing four per cent. of chloroform, a mixture which, as M. Paul Bert has shown, never produces anæsthesia under ordinary circumstances. The anæsthesia ceases in about an hour, although the dog may continue to breathe the mixed gases. The same result may be produced by giving twice the amount of hypnone by the mouth. The practical value of these facts lies in the probable diminution that can be made in the amount of chloroform required for anæsthetization.—*The New York Medical Journal*, February 6th, 1886.

ARTIFICIAL COCAINE.—MERK succeeded in transforming benzoyl-ecgonin, a new substance discovered by him, into cocaine, as reported by the *Pharm. Zeitung* of October 31, 1885. It might interest some of the more speculative minds to know how to prepare the costly alkaloid without the Peruvian plant.

Several grammes of benzoyl-ecgonin are heated to 100° (C.) with iodide of methyl and methylic alcohol, and then slowly evaporated. The product is a hydrate of iodine, and conforms to all tests of genuine cocaine, and even has the same melting-point as the latter (98°).—*Therapeutic Gazette*, January 15, 1885.

SUBCUTANEOUS INJECTION OF OXIDES OF MERCURY.—Subcutaneous injections of the black and red oxides of mercury have been recently tried as an anti-syphilitic treatment in the Lazarus Hospital at Warsaw by DR. VON WATRASZEWSKI, who has charge of the syphilitic wards. He finds that no inflammation and scarcely any pain is produced, no abscess having occurred after any of the 200 injections he has performed. The therapeutic results were most satisfactory both in recent cases and in those where the disease was of old standing.—*The Lancet*, February 13, 1885.

THE
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THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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THE AMERICAN MEDICAL ASSOCIATION—IS IT DESIRABLE TO MAKE MATERIAL CHANGES IN THE PLAN OF ITS ORGANIZATION, PARTICULARLY IN THE DIRECTION OF ASSIMILATING IT TO THAT OF THE BRITISH ASSOCIATION WITH BRANCHES?

To increase the incentives to the formation of local medical societies and their active support by all intelligent physicians, the actual experience gained in the history of the progress of the American Medical Association not only led to an amendment of the constitution of that organization, by which the reception of delegates was restricted to State Medical Societies and such city, county and district societies as were recognized by their respective State Societies, as explained in our remarks in the preceding number of THE JOURNAL, but the same influence led to further changes in the same direction. The original constitution permitted the Association at any regular meeting to elect an indefinite number of Permanent Members, provided those nominated received a unanimous vote. It required but few years to show that at almost every annual meeting members were thus elected who had taken no interest in the local societies of their own city or State, and the number of these so increased as to attract attention, and led to the addition to the clause of the constitution defining the eligibility of candidates for membership, of the following clause: "Nor shall any person *not a member* and *supporter* of a *local medical society*, where such a one exists, be eligible to membership in the American Medical Association." Consequently the election of Permanent Members by unanimous vote has nearly ceased.

It is thus seen that simple practical experience has demonstrated during the past forty years the correctness and adequacy of the principle of strict *representation* for the support of the National Organization, while the same experience has equally shown that the few minor deviations from that principle which were incorporated into the original plan of the Association, have been steadily undergoing elimination for the sole purpose of strengthening the State and local society organizations. It is an important law of social science that cannot be too clearly comprehended by all who are interested in organizing and sustaining societies of of any kind among men, that every step higher or more honorable a man gains, tends to make him more indifferent regarding the steps below. An attorney who has fairly gained access to the Bar of the Supreme Court will rarely be seen doing business in a Justice court. A statesman who has once sat in the legislative halls of the Nation will rarely be induced to subsequently accept a seat in the Legislature of a State or Province. And as membership in a National Association is in the nature of things regarded as more honorable than one in a State Society, and the latter more so than one in a county or town society, membership in the first will make the latter seem less important, and it will be more readily neglected.

Another law equally discernible in the working of human society, and the recognition of which is equally important to those who would plan wisely, is that whenever a high or desirable position is accessible through different channels, the great majority of men will take that route which is the shortest and least expensive in time or money. We have already given illustrations of this in the preceding issue of THE JOURNAL, in the readiness with which the faculties of medical colleges and the staffs of hospitals, etc., sent delegates direct to the National Association, while but few of them, comparatively, were taking any part in the local societies around them until the constitution was changed. But as delegates are still admitted to the National Association from city and county societies on the same basis as from the State Societies, every annual election of such delegates in the local societies results in the election of many who seldom or never attend the State Society. Another illustration of the same principle is afforded by the number of those members of the profession, chiefly in our large cities, who make frequent visits across the Atlantic; choosing such times as will enable them to attend one or more of the important meetings of the medical societies in Europe. The sanitary effects of a sea voyage, the

gaining of recognition by eminent men abroad, and the popular *éclat* gained at home by the supposed advantages of foreign travel and study, combine to make such trips to those who have the means doubly attractive. Hence it is not difficult to find those who have not only more frequently attended medical societies and institutions in Europe than those of their own country, but who appear to have also acquired far more familiarity with the medical men and literature of Germany than of either, as they actually exist in this country; while they are too readily accepted as *the prominent* medical men of America by those whose acquaintance they so assiduously cultivate, and in turn many of them acquire the habit of giving expression to the idea that we have neither educational institutions, scientific investigations, nor really eminent medical scientific men (themselves perhaps excepted) worthy of attention in this country. We by no means object to visits to the societies and institutions of other countries, or to the cultivation of foreign literature, but we regard it as the duty of every right-minded man not only to thoroughly acquaint himself with the literature and institutions of his own country and ever be ready to represent them fairly, but every member of the medical profession who can command the time and means to gather knowledge in other countries, is under unusual obligations to attend and give active support to the social and scientific interests of his profession at home.

The influence which has been exerted through the organization of the American Medical Association on a uniform basis of representation by delegates from State and more local organizations, exacting but the one condition that all the constituent organizations should be governed by *one* Code of Medical Ethics, has led to the establishment of efficient State Medical Societies in every State and inhabited Territory in our widely extended country, nearly all of which are based on the same representative principle in regard to the more local organizations in each State. And although none of these organizations are so complete as to embrace all the members of the regular profession within their limits, yet they do collectively embrace a large majority of regular active members of the profession in the United States of America; and the American Medical Association, as the delegated head of all these confederated societies, is the legitimate and authorized representative of the whole. If those who are in the habit of disparaging and denying the extent of the actual constituencies of the Association at the present time, will take the trouble to estimate carefully the number contained in all the State, district, county and city societies entitled to representation in the National Organization, they will find that it rests to-day on an actual constituency of not less than 40,000 members of the profession.

If those who have so freely indulged in denunciations of this extended National Organization during the past year, and have diligently endeavored to persuade the world that its day of usefulness had passed, and the sooner it was abandoned the better, will spend a few hours in examining the record of its influence in aiding the Medical Corps of the U. S. Army and of the U. S. Navy to obtain from Congress the legal recognition of a more just and honorable official rank; in from year to year urging directly and through its constituent State and Local Societies the enactment of laws for establishing State Boards of Health and other measures for improving the sanitary condition of all our municipalities; and in lending its entire influence until probably every member of Congress had been reached and influenced in his own home by members of the Association, who are also voting members of his own constituency, in favor of the necessary appropriations for adequate fire-proof buildings to preserve and protect through all coming time the magnificent Medical Library and Museum of the Surgeon-General's Office at Washington, they may possibly see in what it has, at least, aided to accomplish, some excuse for helping it to exist for further work in the same directions.

PTOMAINES, LEUCOMAINES, AND MICROBES.

At the meeting of the Académie de Médecine of Paris, on February 2, M. PETER read a communication on this subject, in which his object was to point out the bearing of clinical observations on the discoveries of Gautier. Independently of their intrinsic value, he says, these discoveries have the merit of confirming what we know of poisoning of the organism by itself, by giving a greater degree of precision to our previous knowledge. It need scarcely be said that M. Peter refers to Gautier's discovery of the alkaloids of decomposition, to which Selmi gave the name ptomaines. He has also shown that in living animals, and by the very fact of life itself, certain analogous alkaloids are developed, to which he has given the name "leucomaines." And he has shown that in living animals certain non-crystallizable nitrogenous substances are produced, undetermined as yet, and that these are extractive matters. While all three are highly poisonous, the extractive matters possess greatest toxicity.

In considering these bodies, says M. Peter, we naturally turn to the chemical side. Here clinical experi-

ence steps in and shows that to the difference in intoxication corresponds a difference in heat; poisoning by the extractive matters produces increase in temperature, while intoxication by the animal alkaloids produces decrease in temperature; and one may see in the same organism an association or alternance of increased and lowered temperature, according as there is an association or alternance of the different poisons. But what is very interesting, and of no little importance, says M. Peter, is that the discoveries of Gautier protect us from the tyranny of the microbes. They really explain the formation of the most poisonous alkaloids and the still more poisonous extractive matters. "They show that auto-infection, *spontaneous* infection of the living organism—*spontaneous*, that is to say *by itself*—that spontaneous infection, I say, of this organism by the alkaloids and extractive matters which it produces in itself because it lives, is merely a question of quantity; in other words, the living organism may poison itself by the accumulation within itself of these substances made in itself."

But how is this poisoning of the organism by itself brought about? According to M. Peter, and the idea is by no means original with him, life is an essentially relative and contingent phenomenon; it is a series of partial deaths. Health is also an entirely relative phenomenon, and just as contingent, the unstable equilibrium between good and bad. The series of partial deaths which make up life is the result of the working of the organs of animal life. When we think heat is evolved in the brain, and the material result of cerebral activity is neurine, an alkaloid improper to normal life. Muscular movement causes heat, the material result being creatinine and other alkaloids improper to normal life. In fine, all the organs which work and which, by working undergo partial destruction, make, besides these alkaloids, extractive matters. Life, then, is also only a partial and prolonged suicide; and it is easily seen how precarious is the state called "health," and how, even by the action of our own organs, disease may supervene: all that is necessary is the accumulation in our bodies of "cadaverized" materials. Such accumulation presupposes insufficient elimination, and this may take place in two very different conditions of life. Sometimes the alkaloids and extractive materials are produced in excess, the emunctories remain normal, but are momentarily insufficient for carrying off these substances as fast as they are produced. Or there may be a normal production of these substances, but the emunctories are morbidly altered or suppressed for the time being.

Having followed our author to this point it is not difficult to see the point to which he would lead us—to a belief in the spontaneous origin of disease and thorough skepticism in all sorts of microbes, especially as we know that he has long since proved, to his own satisfaction, that a microbe is an accident. He knows that typhoid fever arises spontaneously, because he has seen cases which he could not trace to any other origin. Let us suppose, he says, that a certain quantity—say 10 units—of extractive matters and alkaloids is produced in the organism of one man, and that he only eliminates 8 *per diem*: obviously in twenty days he will have 40 retained in his system, which is sufficient for intoxication and disease. Autotyphisation is the result, and the man has typhoid fever. According to this theory we must regard disease as the result of the accumulation of a certain amount of excrementitious matter; a different amount, with different proportions of each excrementitious substance, for each affection. This would certainly be a most convenient theory if we could only find out just what matters, and how much, are retained in each disease, and how they could be eliminated before the disease sets in.

Our readers are now prepared to know that Prof. Peter holds that uræmia is due to the "adulteration of the blood by a cadaverized animal matter, the urine." In his opinion other diseases are produced in analogous ways. He concludes his remarkable paper with a denunciation of Koch and the comma-bacillus, and unhesitatingly pins his faith to Gautier's leucomaines. "Henceforth," he says, "medical intelligence will not hesitate between the parasitic doctrine, full of dark hypotheses, and this new doctrine, as luminous as precise, which explains the normal and abnormal phenomena of life by life itself in action." M. Peter's theory (or doctrine) may be compared to that so ingeniously elaborated by Després regarding the nature of syphilis. Both show that while a man may be an accurate and acute observer, he may be a very bad interpreter of the facts observed.

SIR ANDREW CLARK'S VIEW OF THE PATHOLOGY OF ASTHMA.

In one aspect of the case it is amusing to note the great diversity of opinion among medical authorities concerning the nature of diseases; in another it is lamentable. It reveals the limitations imposed upon man's knowledge, and above all it emphasises the uncertainty of medical knowledge. There is scarcely a subject about which a difference of opinion does not prevail. As set forth in a leading article of the issue of this JOURNAL, of September 19, 1885, the etiology of asthma is no exception to the rule. With

regard to this distressing malady the determination of its exact nature would have a practical bearing upon its treatment.

Whatever may be said of our English brethren as pathologists, they are practical men and careful clinical observers Hence it may be of interest to know what so eminent a teacher as Sir Andrew Clark has to say on the subject of the causation of asthma. The last number of the *American Journal of the Medical Sciences* contains a paper by him entitled "Some Observations on the Theory of Bronchial Asthma viewed in the light of the Pathology of Hay Fever." After setting forth his reasons for the belief that hay fever is not to be regarded as due exclusively to some external irritant, as the pollen of plants, but that there is a neurosal element in the disease, and after citing instances in which hay fever and typical spasmodic asthma alternated with each other, "like a regular see-saw between the nasal and bronchial troubles" he states certain propositions, as follows:

"1. Asthma is a neuro-vascular trophic disease, and has its roots in a special vulnerability of the respiratory mucous membrane, of the respiratory nerve centres, and of certain portions of the sympathetic.

"2. The irritation exciting the nerve discharges which bring about the asthmatic paroxysm may arise in the blood, in any one of the mucous tracts, but more particularly the respiratory one, in certain cutaneous inflammations, and in the central nervous system itself.

"3. The paroxysm begins by a more or less diffused hyperæmic swelling of the bronchial mucous membrane, and is continued by the development at various parts thereon of circumscribed congestive swellings, which come and go with greater or less rapidity, and resemble, in many particulars, the swelling of the skin in nettle rash.

"4. At their first appearance these swellings become coated with a viscid mucus, hinder the entrance and exit of air, and by their vibration produce for the most part the drier râles characteristic of a certain state of the asthmatic paroxysm. Towards the close of an attack, the swellings after free secretion subside, the dyspnœa is relieved, and moist takes the place of dry râles.

"5. The secretion from the swellings being sometimes acrid, and even corrosive, may excite some contraction of the bronchial muscles; but such contraction can not become, either by its nature or its amount, the chief factor in the evolution of the asthmatic paroxysm.

"6. The hyperæmia and circumscribed swellings of the bronchial mucous membrane hindering the free entrance of air, and thereby the full aëration of the blood, both the peripheral nerves and the respiratory centres are irritated, and exaggerated discharges of respiratory impulses are sent to the inspiratory muscles, which are thrown thereby into violent and sometimes even tetanic contractions.

"7. These violent inspiratory efforts increasing the Hallerian extension force of the thoracic walls, straighten the bronchial tubes, and notwithstanding the tendency of respiratory forces to increase the size of the swellings, make the entrance of air into the lungs far easier than its exit.

"8. When the inspiratory efforts cease, and the expiratory recoil begins and is continued by the muscles of forced expiration, the smaller bronchi, more especially those containing mucous wheals, are compressed, and all the passages are relaxed and lose their straight direction. Thus the egress of air is greatly hindered, and the act of expiration so much prolonged that it is something suddenly interrupted and prematurely closed by the violent inspiratory efforts originated in the respiratory nerve centres through the circulation of imperfectly oxidated and decarbonized blood. In this way inspiration gains upon the expiration; the alveoli are extended with air; the diaphragm is depressed; the chest, in all its dimensions, is dilated; breathing becomes more and more difficult; death seems imminent; and the paroxism is at its height.

"9. After a time, varying greatly in duration, the attack begins to subside, and, partly by secretion from the bronchial mucosa, partly from the exhaustion of the excitability of the respiratory and vasomotor centres, respiration becomes easy, lividity and swelling of the face disappear, restless anxiety is displaced by growing calm, and the attack is brought to an end."

As Sir Andrew states, his theory resembles somewhat that propounded in 1872 by Weber, which is that asthma is due to a fluxionary hyperæmia of the bronchial mucous membrane; but Sir Andrew Clark says that he has taught his theory for twenty years. If perused attentively, it will be found to present some novel features with which issue might fairly be taken. Yet, as the author says, a theory should be judged "not by its fertility or barrenness" but by its practical workings. Viewed in this light there are certainly some cases of asthma which are so amenable to treatment of the kind likely to remove bronchial congestion, if it exist, that it seems legitimate to refer the paroxysm to such a cause. On the other hand, there are asthmatic patients in whom the neurotic element is so predominant as to make Sir Andrew Clark's theory inadequate to their satisfactory explanation.

SOCIETY PROCEEDINGS.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, February 15th, 1886.

THE PRESIDENT, C. T. PARKES, M.D., IN THE CHAIR.

(*Concluded from page 245.*)

DR. HENRY T. BYFORD read a paper on the

PRODUCTION AND PREVENTION OF LACERATION OF THE PERINÆUM, WITH DESCRIPTION OF AN UNRECOGNIZED FORM.

(See page 253.)

For the purpose of illustration the perineum was divided into two parts, the vulval or external, and the vaginal or internal. The former lies external to the muscles and the latter includes all the rest. When the perineum is slightly stretched by the head two rings may be felt by hooking the finger over the fourchette; an external ring marking the edge of the vulva and an internal ring marking the edge of the muscles and fascia about the vaginal orifice. Upon the positions and relations of these rings depends the safety of the perineum. When the occiput engages in them before the forehead passes the coccyx, the fourchette and muscular edge are pressed downwards and the perineum but little bulged and not at all endangered. When the occiput does not engage in the rings before the forehead leaves the coccyx, the fourchette is pushed upward before it, the perineum stretched from three to four inches antero-posteriorly, while part of the propelling force and nearly all of the directing force are lost before the head passes the rings and is born. The head in such cases has a greater distance to travel before delivery, involving loss of time and strength.

The author described an obscure but not infrequent form of rupture in which separate muscular fibres and portions of the fascia give way all through the perineum, or through a region of it, without involving skin or mucous membrane. Frequently there were not enough unruptured fibres left of the tissues to insure contraction and involution, and thus prevent displacements of the uterus. A persistent flabbiness is the chief diagnostic sign. To prevent rupture Dr. Byford advised: 1. To gain time for dilatation without injury to the deeper tissues by favoring a slow advance of the head over the floor of the pelvis. 2. In order to secure sufficient dilatation of the vulval and vaginal rings to make the occiput ride over them instead of hooking under them by keeping the membranous pouch intact, or in its absence early resort to artificial dilatation rather than wait for the fourchette to be thus hooked up over a bulging perineum, and then resort to the ordinary methods.

DR. G. H. RANDALL thought that by directing the head many perineums might be prevented from rupturing. We sometimes fail to direct the head and manipulate the perineum as each case requires because the woman is not in the proper position. Formerly he had delivered most of his cases in the dorsal position, but not being satisfied with the way he was able to manipulate the perineum and head, he had tried the lateral position, and it seemed a great improvement. He could now support the perineum by directing the head with a great deal more ease and effect than ever before, and it seemed to him that the lateral position is preferable to the dorsal.

DR. C. T. PARKES exhibited some

SPECIMENS FROM BATTEY'S OPERATION, AND OF OVARIAN TUMOR WITH TWISTED PEDICLE.

"The specimens which I have to present to you on this plate are two ovaries and forty gall stones. The two ovaries were removed from a lady who had suffered for over ten years from a great deal of trouble in the pelvis. They are noticeable in that the left one is very small and the right one very large. In this box are forty-three gall-stones which I removed from a gall-bladder yesterday. In reference to the oöphorectomy, I desire to call attention to the knot used in securing the pedicle and which has been rendered famous by Mr. Tait; he calls it the Staffordshire knot. Its use got me into trouble. It does not secure the pedicle by merely tying the knot. It must be drawn sufficiently tight to cut off circulation in the pedicle before the final knot is secured, otherwise the pedicle is very feebly constricted. I used it in this case in securing the left ovary, and passed on to the removal of the right ovary, during which operation I noticed that a good deal of bleeding was going on. Having removed the right ovary, I then looked for the point of hæmorrhage and found a spurting artery in the unsecured left pedicle. I was astonished, because I thought I had tied the knot very tightly. It is necessary that the constriction should be made by the string, and the circulation must be entirely cut off before any attempt at tying is made. The other specimen is a large tumor, the weight of which was estimated at twenty-three pounds. Eight days before the operation, the patient having been in a previous condition of apparent good health, was suddenly taken sick, temperature 102, pulse very fast and feeble, abdomen tender from peritonitis, urine suppressed. I diagnosed a twisted pedicle, and advised immediate operation. The operation was done as soon as possible, and although she was in a very feeble condition at the time, the operation apparently made very little impression upon her. As soon as the abdominal incision was made a black tumor presented, and instead of the cyst portion being uppermost, as is almost invariably found, the solid portion was in front. When the trocar was pulled out there was scarcely any hæmorrhage from the opening made by it; usually there is considerable hæmorrhage, especially when introduced into a solid tumor. When it was removed from the abdomen there was found to be a turn and a half in the pedicle. The temperature fell after the operation and did not again come up to one hundred. On the seventh day all the stitches were removed and the patient is practically well to-day. These tumors sometimes have pedicles twisted completely off, so that they are in a sloughing condition; in other cases the twisting goes on so slowly that the pedicle is finally destroyed entirely. Spencer Wells says that he has

found tumors with no pedicles. The three points that seem to me to indicate this diagnosis are the rapid occurrence of distension, the commencement of peritonitis, and the suppression of urine."

THE PRESIDENT said in answer to a question, that because a patient has symptoms of gall-stones and the evidences are pretty positive of their presence, no one must imagine that thereby he is going to have an easy time of the operation. The case from which these gall-stones were removed was a very difficult one for operation. The patient was a woman of considerable adipose tissue on the surface of the body, and it was difficult to expose the gall-bladder at all. The liver, instead of being distended and projected below the ribs, was contracted and high above them. It was difficult to find the gall-bladder at first, and it was found to be about the size of a finger, elongated and lying in its natural position and adherent to the liver. The fundus was contracted and hardened or thickened so that the finger had to be passed well down along its surface before any evidence of the stones could be found at all; it was separated from its attachments to the under surface of the liver, and then by carrying a thread through its fundus it was lifted to the top part of the incision and the finger introduced into the cavity of the gall-bladder and the stones removed. Of these stones the largest was found in the gall-duct. It was forced from the gall-duct into the gall-bladder.

DR. H. P. MERRIMAN asked the President if any cause was known for the twisting of the pedicle in ovarian tumor.

THE PRESIDENT said that he made very close inquiry on that point; the night previous to the occurrence of the trouble the patient felt something move in the abdomen from the left to the right side. She was lying in bed at the time. In reply to Dr. Strong the President said he did not think that rupture of the cyst would not be followed by an increase in the size of the abdomen, nor by any change in the function of the kidney.

DR. W. FRANKLIN COLEMAN read a paper on

A REPORT OF THREE CASES OF OSSIFICATION OF THE CHOROID, AND THE REPORT OF ONE CASE OF OSSIFICATION OF THE LENS, WITH SPECIMENS.

In cases one, two, three and four the eye had been lost five, twelve, fourteen and thirty-four years respectively before medical advice was sought on account of sympathetic trouble in the fellow eye. In cases one, two and four the lost eye had occasionally been painful. In cases one, two, three and four sympathetic disease did not occur after the loss of the eye until five, twelve, eleven and eighteen years respectively. The sympathetic disease excited in case one was serous kerato-iritis; case two, cyclitis; case three, irido-cyclitis and cataract; case four, optic neuritis and mild iritis. Dr. Coleman advised the immediate enucleation of a bony eye on the same ground that the enucleation of an eye lost from injury in the ciliary region would be advised. Neither the ossification nor the injury is in itself the immediate cause of the sympathetic disease, but either may be the indirect cause by exciting an irido-cyclitis.

DR. R. TILLEY said the term ossification of the lens might lead to a misunderstanding, that there is actually ever an ossification of the lens. Becker, of Heidelberg, claims that ossification of the lens can not and does not take place, and that there is no case of it on record. He says that in the case of a ruptured capsule a membrane may be developed from the ciliary region, and from the developing blood-vessels an ossification may take place in the region of the lens, but that it should not be called an ossification of the lens. He gives an interesting case showing how readily a mistake may be made and ossification supposed: A boy was struck in the eye with a hay fork, and came under his care about ten hours after the accident. Forty-three hours after the accident the eye was enucleated, and he thought from a macroscopic examination that the lens was intact, but on microscopic examination, what he supposed to be the lens was found to be an extravasation of blood, and the lens had escaped. He remarked that it is easy to see that an ossification might have occurred, under these circumstances, and the same been taken for the lens.

DR. COLEMAN said, in conclusion, that he was well aware that literally and truly the lens fibres do not become ossified, but wherever connective tissue exists ossification may occur, and connective tissue may occupy the site of the lens. Dr. Voorhies cites a case in his own practice of an ossific mass occupying the normal position of the lens which an expert microscopist, upon examination, pronounced ossification of the lens. Dr. Knapp does not say he denies the possibility of such ossification.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, February 10, 1886.

THE PRESIDENT, C. H. A. KLEINSCHMIDT, M.D., IN THE CHAIR.

T. E. MCARDLE, M.D., SECRETARY.

THE PRESIDENT presented a

PAPILLOMA OF THE UVULA.

The patient was an old gentleman between sixty and seventy years of age, a local preacher by profession. He had found for several years that after preaching for twenty minutes or more he was constantly compelled to clear his throat, and before his sermon was finished his voice failed him. Dr. Kleinschmidt examined his throat and discovered a growth in the left side of the uvula, near the apex. The tumor was removed without any difficulty. Dr. W. W. Johnston presented a similar specimen to this Society ten or fifteen years ago.

DR. E. CARROLL MORGAN said he was glad Dr. Kleinschmidt had presented this case of papilloma of the uvula to the Society, as such growths rarely develop in this location, and it consequently presents interesting features. He had noticed recently in reading the report of an institution for the treatment of diseases of the throat, embracing nearly three thousand patients, that only one case of a papillo-

matous tumor of the pharynx was recorded, and none of the uvula proper. His personal experience with papillomata of the uvula included three cases, all occurring in subjects under six years of age; one in a babe about thirteen months old. The tumors in his own cases were in every instance smaller than the specimen exhibited by Dr. Kleinschmidt, were readily removed, and no recurrence has taken place. Dr. Morgan thought that papillary growths of the uvula are often of congenital origin, and his belief is further strengthened by the tender age of his own patients and that of other recorded examples. These tumors rarely attain enormous dimensions and are only occasionally observed in adults, for the annoying symptoms produced by the presence of a growth on the uvula force the patient to seek medical aid, and an early removal is the result. Instances of immense papillomata of the uvula and of the pharynx are, however, reported by Lennox Browne, of London, and Roe, of Rochester. In Browne's case the tumor was as large as a marble. The treatment of this class of tumors is simple, requiring their removal by means of scissors, snare, or forceps, and the subsequent application of the galvano-cautery blade, chromic acid, mono-chlor-acetic acid, or the acid nitrate of mercury, to their base. Recurrences seldom, if ever, occur.

Dr. J. B. Hamilton presented some

SPECIMENS FROM A CASE OF CARIES OF THE KNEE JOINT,

upon which he had operated at Providence Hospital two weeks ago. The patient was a negro who had suffered from suppuration of the knee joint for more than two years. Dr. Hamilton removed the patella and the joint surfaces of the femur and tibia. These bones were brought in apposition, and although there is some suppuration the patient is comparatively free from pain and is doing well. The specimens showed a deep abscess of the head of the tibia, and the entire joint surfaces were eroded.

(*To be concluded.*)

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Relation of Experimental Physiology to Medical Jurisprudence—Poisoning by Colchicine—Antiseptic Value of Biniodide of Mercury—Ferrán on the Comma-bacillus—Medical Students in Paris—Death of Dr. Daniel MacCarthy.

In certain cases experimental physiology may render great service to medical jurisprudence, when chemistry so often fails. According to Dr. Laborde, Chef of the Physiological Laboratory of the Faculty of Medicine of Paris, it is sufficient to know how a toxic alkaloid acts upon a certain function. At a recent meeting of the Société de Biologie, Dr. Laborde developed the subject in the following example: A dog was accidentally poisoned in a laboratory, presumably by veratria or by aconitine. Chemistry was inefficient to solve the problem by the examination of the different organs and the liquids they contained. It was then determined that a certain quantity of these liquids should be injected into the cellular tissue of a dog that was procured for the experiment; the beats of the heart were modified and the graphic tracings indicated in a peremptory manner that it was aconitine that was the substance absorbed, which, however, existed in too small quantity for chemical reagents to detect. By physiological experiment one can obtain more precise results, and be able to know, exactly, the dose of the poison absorbed.

This mode of investigation, however, does not seem to answer in all cases. In a report read by Professor Brouardel, at a recent meeting of the Société de Médecine Légale, on a case of *poisoning by colchicine*, he stated that fragments of the viscera of the supposed victim which were injected into the veins of animals, produced no phenomena characteristic of poisoning by colchicine. Moreover, the author observed that to establish a case of poisoning there must be perfect concordance between the points of information furnished: 1. By chemical examination; 2. by the necropsy; 3. by chemical analysis; 4. by physiological experiments. In the case under consideration, the hypothesis of poisoning by colchicine was justified by the symptoms observed during life, which clinical information might be added to the conditions named above, as being necessary for the elucidation of cases of reputed poisoning.

M. Miguel, a well-known chemist, in a list published by him of the antiseptic power of divers substances, placed the bichloride of mercury among the most efficient, but it has since been superseded by the biniodide of mercury; which, after some new experiments by the author, has been found three times more active than the bichloride. To prevent fermentation in a litre of sterilized bouillon, it requires about 25 milligrammes of the biniodide of mercury and 70 milligrammes of the bichloride. It is impossible for bacteria to live in a solution of the biniodide of mercury of the strength of $\frac{1}{10000}$, or of the bichloride of that of $\frac{1}{14000}$. The author recommends that when a good antiseptic is required, whether in obstetrics or whether after operations on the vagina and the uterus, a solution of the biniodide of mercury of the strength of $\frac{1}{40000}$th should be employed in preference.

After having retired in obscurity for awhile, Dr. Ferrán, the famous anti-cholera vaccinator, has revived his favorite subject by addressing to the Paris Academy of Sciences a work got up by him in conjunction with M. J. Pauli, "On the Active Principle of the Comma-bacillus, as the Cause of Death and of Immunity." From four series of experiments performed on guinea-pigs, the authors drew the following conclusions: 1. The dead comma-bacillus communicates the tolerance which permits the organism to resist the effects of the living comma-bacillus. 2. The active principle of the comma-bacillus, isolated by certain known methods, confer a condition which permits the organism to resist the effects of the living

microbe, and vice versa. According to MM. Ferrán and Pauli, the cause which determines immunity and that which occasions death are one and the same, and is essentially of a chemical nature; consequently immunity is in reality nothing more than a certain habit or state of the system which may be obtained by purely chemical agents.

In his report for the past year, Dr. Béclard, the Dean of the Faculty of Paris, makes the following statement: The average number of students has been about the same as that for the last few years, viz., 4000. Of this number there were 103 women, among whom there was one Indian, one Turk, three Austrians, eight French, and seventy-six Russians. During the last seven years only eighteen diplomas were issued to doctoresses, rather a small number in proportion to the number of lady students who took out their inscriptions. Dr. Béclard further states that the presence of women among the students has, till now, caused no inconvenience in a disciplinarian or moral point of view. Four hundred and eighty degrees of Doctor of Medicine were given to candidates of both sexes during the year.

At the last competitive examination for the Externat of the Paris Hospitals there were 287 candidates, and among the successful ones I find the names of four lady students; Miss Klumpke took the ninth place in the list. At the examination for the Internat, at which ninety-eight candidates were received, Miss Klumpke came out the twelfth.

The English Colony in Paris has just lost one of its oldest and most respected members by the death of Dr. Daniel MacCarthy, at the age of 69 years. He had been in failing health for some months past, in consequence of which he had been gradually obliged to relinquish his large practice. The deceased physician was the son of English parents, but he had spent the greater part of his life in France, which became the country of his adoption. He took his degree in 1844 at the Paris Faculty of Medicine, and although his connections were principally French, his practice extended to the English speaking residents of Paris. A. B.

DOMESTIC CORRESPONDENCE

BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION.

TO THE EDITOR OF THE JOURNAL:

Dear Sir.—From the tone of the letters published in THE JOURNAL of February 27, especially those of Drs. Hamilton and Keller, I am afraid that I did not state my ideas on this subject with sufficient clearness in my letter in THE JOURNAL of February 6. My whole object is the future good of the Association, *and therefore* of the medical profession in this country. My object is *not* so much to increase the *power* of the Association, as its influence; and the further object is to organize the profession in America. Dr. Hamilton and some others seem to be under the impression that it was proposed to do away with the State Societies and their power altogether. On the contrary, I took special pains, in my letter of Feb. 6th, to keep any one from thinking that I advocated such absurdity. Dr. Hamilton's proposition to "simply open the doors of the Association so that its members shall include the members of affiliated State Medical Societies," etc., must be regarded, I think, as excellent.

Dr. Keller also seems to have mistaken my meaning when he says: "I can see no other object in making the changes suggested than that of increasing our membership and strengthening or replenishing our treasury, at the sacrifice of our State Societies, which have done good work in standing as the only gates through which entrance to the Association could possibly be effected; and it occurs to me that the moment they are removed we will let down the bars to hordes of crooks and charlatans whose crookedness shuts them out of Societies at home where they are best known." I cannot see how my meaning could possibly have been so mistaken. In THE JOURNAL of February 6, page 164, I say expressly: "The State Society would still have control of its members." There is not a word in the whole letter which advocates sacrificing the State Societies, and not a word which can be construed to mean that the Branch system would let down a single bar to a charlatan. The safeguards against crooks and charlatans would be as strong as ever, but a very large amount of red tape would be taken away from the requirements for admission to the Association when *respectable and reputable physicians* desire to enter. The British Association has members who are not attached to any Branch; and the American Association has members who are not members of any State or local Society, but they are not necessarily charlatans. But I hope that those who enter into this discussion in the future will at once read my letter carefully, and dispossess their minds of the idea that there is a plan on foot to relegate the State Societies to the limbo of oblivion. I would have them stay just where they are, as regards all their rights and privileges. The object of my proposition undoubtedly is to increase the membership of the American Medical Association, to make it more powerful for good and against evil in the profession. If any one can propose a plan which will be more acceptable to the majority than the Branch system, I will certainly not raise my voice against it; but I do not see that a plan is necessarily bad because it is imported from Europe (and I am not an Anglo-maniac). The plan suggested by Dr. Hamilton certainly has the merit of simplicity.

Finally, the differences of opinion shown in the four letters published in THE JOURNAL of February 27, shows that the subject has not been broached any too soon, for the whole matter should be brought up before the meeting in St. Louis, and referred to a committee to report on at the annual meeting in 1887. And while any plan would be objectionable which would sacrifice existing organizations, a plan which would ignore them would be equally objectionable.

Inasmuch as the adoption of any one of the plans proposed would necessitate a change in the Constitution of the Association, and as any proposed

change must lie over for one year, the whole matter should be referred to a wisely selected committee, which should fully investigate the matter in all its bearings and aspects, obtaining, in so far as possible, the sentiment of members of State and local Societies, so as to make a complete and comprehensive report in 1887. BRANCH.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—In a letter in THE JOURNAL of February 6, "Branch" opens up a very proper field of discussion in the closing paragraph of his letter on "Branches of the American Medical Association," when he says: "Any one who will take the trouble to look the matter up will be surprised to see the number of physicians in this country who do not belong to any medical organization at all. Even in some of the most populous States there are numbers of Counties without any medical society; and in many of the Counties in which medical societies exist, there are numbers of medical men who have no connection with them."

To show that this is true I need only mention the State of Illinois as a most striking example. Exclusive of Cook County there are one hundred Counties in the State, with only *seventeen* (?) County Medical Societies. These one hundred Counties have between 3400 and 3500 regular physicians, and only 417 who are members of a County Medical Society. As regards the proportion of society members in the Counties in which societies exist, the following are the figures, as nearly as I can ascertain: Adams County, 87 regular physicians and 48 Society members; Champaign, 76 physicians and 27 members; Clinton, 28 to 9; Crawford, 29 to 11; De Witt, 32 to 20; Douglass, 31 to 19; Jersey, 17 to 6; Macoupin, 56 to 32; Madison, 67 to 26; McLean, 83 to 57; Montgomery, 36 to 13; Ogle, 33 to 16; St. Clair, 79 to 27; Stephenson, 36 to 19; Vermillion, 80 to 43; Winnebago, 51 to 22; and Woodford, 23 to 22. Seventeen Counties, therefore, with 844 regular physicians, have only 417 society members (this is as near as I can approximate without late returns). There are 911 regular physicians in Cook County, 812 of whom are in the city of Chicago. Of the 99 outside of the city 8 are members of the County Medical Society; 6 are members of the State Medical Society (2 of whom are members of the County Medical Society); and 3 are members of the American Medical Association. There are, then, 87 regular physicians in Cook County, outside of the city who are not members of any medical organization. Of the 812 in the city only 302 are members of the County Medical Society. As the transactions of the Illinois State Medical Society for 1885 has not yet been published I have not been able to ascertain the number of members in the State Society; but I may safely say that there are not 1000 members. From the "Medical Directory" it appears that only 96 of the 812 in the city are members of the State Society.

It must be admitted that this is an exceedingly poor showing. It may not be worse than that in some other States, but at the same time it is bad. It shows that there must be something radically wrong with the societies or with the doctors—and we can scarcely believe that the great majority of our medical men are at fault. In order to join the British Association or one of its Branches the candidate must be recommended as eligible by three members, and he may be elected a member by the *General Council* of the Association, or by any recognized *Branch Council* (the name of the candidate seeking election by a Branch Council must be inserted in the circular calling the meeting at which he seeks election). Red tape is thus reduced to a minimum, and yet there is no more probability of a bad man getting in than into one of our State Societies. It seems absurd to keep a man out of a State Society—or out of the American Medical Association (as was the case before the meeting in 1884)—because he does not or can not attend the annual meeting at which he seeks election. In 1885 my name was placed before the Chicago Medical Society for two reasons: I wished to be a member of the local Society, and I was anxious to join the State Society at the Springfield meeting. I was told that there would be no difficulty in being sent as a delegate from the Chicago Medical Society. There was no want of time, for the State Society was not to meet for about six or eight weeks. After my name got into the hands of the Committee and before the Society, the business of the Society hung fire, meeting after meeting, in order that some quarrel might be "investigated." The result was that my name, and those of several other applicants for membership, remained unacted upon, and I could not join the State Society.

In many respects the "delegate system" is simply a nuisance, a seemingly nicely devised plan for keeping out men who cannot attend a meeting or who are not members of a local society. And when, as is the case in Illinois in so many counties, there is no County Medical Society, hundreds and hundreds of physicians may be kept out of the State Society altogether. Having heard that the "delegate system" is not in force in the Medical Society of Virginia, I find the following regulation for the admission of members in the Constitution of that Society: "Every candidate for Fellowship shall make application to the Committee on Nominations; such application to be presented and endorsed by a Fellow having a competent knowledge of the applicant. If this Committee shall report favorably thereon to the Society, the candidate shall be balloted for, and the approving votes of three-fourths of the Fellows present shall be necessary to his admission." The application must be accompanied by the initiation fee, which is returned if the candidate be not elected. In the *Transactions* of that Society for 1885 I find that 105 new members were thus elected at the last annual meeting. Now, if this method of electing members of the State Society is successful in Virginia, why should it not also succeed in Illinois and other States, and in the American Medical Association? It may be said that it is not so desirable to increase the membership of the Societies as to get *good* men into them. I do not believe in the "holier than thou" sentiment. The Societies are for all reputable phy-

sicians; and each should be considered reputable until he shows that he is not, when he may be easily removed. This is certainly much better than keeping a man out because he *may* not be all that is desirable.

In this connection may be mentioned the following propositions which the secretaries of the county societies in Ohio have been asked to bring before the societies: 1. To so change the constitution of the State Society as to make the members of the county societies members of the State Society simply by virtue of their local membership. 2. Present members of the State Society to remain members without reference to membership in local societies. 3. All members to stand upon an equal footing, thus doing away with the delegate system. Such amendments to the constitution of the Illinois State Medical Society would still exclude very many practitioners from membership.

It must seem, therefore, that the question opened by "Branch," and further discussed in THE JOURNAL, of February 27, is one of vital importance to our County and State Societies, to the American Medical Association, and to the whole profession in this country; though it is to be regretted that some of the correspondents have made it appear that "Branch" advocated supplanting or sacrificing the State Societies. Their letters, written with this idea, may prejudice many against the plan proposed, even were it the best; but careful reading of his letter will show that he has not advocated any such thing. One thing is very certain: the profession needs more efficient and more active organization than exists at present. The Association is not what it should be, nor are the State and County Societies what they should be. Some organization, based on the suggestions already offered by the correspondents on the Branch question will undoubtedly make them what they should be. ILLINOIS.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—Two admirable letters on this subject have lately appeared in THE JOURNAL, one signed "Branch," in the issue of February 6, the other from Dr. James H. Parkinson, of Sacramento, California, in the issue of February 27, 1886. It seems to the subscriber that the time has come when measures should be taken tending to increase the membership of our Association, and to render it in letter what it already is in spirit, the representative body of the regular medical profession of the United States of North America. How to accomplish this object has been indicated by "Branch" and by Dr. Parkinson.

Our country is so vast that it will not be possible for members who live in distant States to attend meetings which may be held at the extreme North, South, East or West. To overcome these difficulties, the subscriber asks leave to offer some suggestions as a basis for a plan of organization which, if adopted, will place the American Medical Association in the position which that body should occupy in the medical world, and, as Dr. Parkinson says, enable "the profession to express itself as a unit upon vital questions."

Suggestions.—1. For the purpose of fully carrying out the objects set forth above, the United States should be divided into nine geographical sections, to be known respectively as the First or Northern, the Second or Northeastern, the Third or Northwestern, the Fourth or Eastern, the Fifth or Central, the Sixth or Western, the seventh or Southern, the Eighth or Southeastern, and the Ninth or Southwestern, Division. These nine Divisions should comprise all the States and Territories, and the District of Columbia, arranged as follows:

First or Northern Division, including Dakota, Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin, 8 States.

Second or Northeastern Division, comprising Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, 9 States.

Third or Northwestern Division, comprising Alaska, Idaho, Montana, Oregon, Washington, Wyoming, 6 States.

Fourth or Eastern Division, comprising Delaware, District of Columbia, Kentucky, Maryland, North Carolina, Tennessee, Virginia, West Virginia, 8 States.

Fifth or Central Division, comprising Colorado, Kansas, Missouri, Nebraska, 4 States.

Sixth or Western Division, comprising California, Nevada, Utah, 3 States.

Seventh or Southern Division, comprising Arkansas, Indian Territory, Louisiana, Mississippi, 4 States.

Eighth or Southeastern Division, comprising Alabama, Florida, Georgia, South Carolina, 4 States.

Ninth or Southwestern Division, comprising Arizona, New Mexico, Texas, 3 States.

2. There should be established nine Branches of the American Medical Association, one in each of the geographical divisions. These Branches should be known respectively as the First or Northern, the Second or Northeastern, the Third or Northwestern, the Fourth or Eastern, the Fifth or Central, the Sixth or Western, the Seventh or Southern, the Eighth or Southeastern, and the Ninth or Southwestern, Branch of the American Medical Association.

3. The headquarters of each Branch Association should be in the most populous city in its geographical division.

4. Each Branch Association should hold one meeting annually, and this meeting should not be held any two successive years in any one State belonging to its geographical division.

5. No member of the medical profession should be a member of any Branch until he has joined the American Medical Association, the parent of all the Branches, and none should be eligible for membership to the American Medical Association who is not a member of his State Association.

6. The officers of the American Medical Association should be: A President, nine Vice-Presidents, one from each Division, one Secretary, and nine Associate Secretaries (one from each Division), who should be stenographers, and a Treasurer.

7. The Judicial Council should be composed as follows: The President, the nine Vice-Presidents, the Secretary, the Treasurer, two members from each

Division (eighteen), and one appointed at large by the President, making thirty-one in all, who should manage the affairs of the Association.

8. The officers of the Branch Associations should be: A President (one of the nine Vice-Presidents of the American Medical Association), Vice-Presidents, who should be the Presidents of the various State Associations in the Division, a Secretary, and two Associate Secretaries (who should be stenographers). The President, Vice-Presidents, the Secretary and one member from each State, Territory or District, should constitute the Executive Committee or Council of each Branch Associattion and should manage its affairs.

9. The headquarters of the parent Association should be in the City of Washington, D. C., where there should be held, instead of the annual meetings, a triennial Congress of the American Medical Association, dividing the Congress into fifteen Sections as follows:

1. Anatomy, Physiology and Pathology.
2. Pharmacology, Botany, Materia Medica and Therapeutics.
3. General Medicine.
4. General Surgery.
5. Obstetrics.
6. Gynecology.
7. Pediatrics.
8. Hygiene, State Medicine and Climatology.
9. Chemistry, Toxicology and Forensic Medicine.
10. Ophthalmology and Otology.
11. Rhinology and Laryngology.
12. Dermatology and Syphilis.
13. Diseases of the Mind and Nervous System.
14. Medical Education, History, Literature and Journalism.
15. Dental and Oral Surgery.

10. Each Section should elect its own President, Vice-Presidents, Secretaries and Council with due regard to representation from all the geographical Divisions.

In conclusion the subscriber suggests that the American Medical Association appoint at its next meeting a special committee instructed to frame a comprehensive plan of organization, preserving *intact* our excellent Code of Ethics, and all the by-laws and special resolutions relating thereto.

ACTIVE MEMBER.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—A communication in your JOURNAL of February 6, over the signature "Branch," invites attention to a matter of peculiar interest to the medical profession of the country, namely: the discussion of measures that will more thoroughly bring together and cement the profession, advance the interests of medicine, and build up and strengthen the American Medical Association.

That the American Medical Association should be to the profession of the United States what the British Medical Association is to the profession of England, it would seem, should be the earnest wish of every true-minded physician of this country; and the idea of establishing Branches, or of making every State Medical Society and every local medical organization a Branch, working in harmony and in consonance with the plans and rules of the American Medical Association, certainly appears well adapted to achieve this desirable object.

Whether the mass of our physicians are educated up to this advanced position or not, to make the plan a working success, admits of doubt, and perhaps, under existing circumstances, the better plan would be to utilize the State Medical Societies, making them, with the consent of their members, Branches of the American Medical Association. This plan is suggested by your correspondent, "Branch," and all the objections that might be raised to it fully answered.

There are two prominent purposes to be aimed at in any action that may be taken: *First*, To enlarge and make the American Medical Association a tower of strength, and to embrace in its membership every regular, respectable and intelligent physician in every State and Territory of the United States; making it a truly representative body of the entire medical profession, and the supreme authority upon all questions bearing upon the interests of medicine, and the professional and social deportment of its members. And, *Second*, The advancement of medical science and the collateral branches, and the elevation of the medical profession.

The Association, at its meeting in 1884, I believe, enacted a law or provision by which any member of a State or local medical society, if in good standing and vouched for, may become a "Member by Application" of the Association. This is surely a very broad provision, and in the right direction; and yet, somehow, the privilege is not understood or properly appreciated by the profession, judging from the rate of increase of membership since the provision was adopted. It seems to lack the attraction and force which attach to Branch organizations, and is wanting in that complement of professional work and responsibility which the latter would impose upon each member. Hence I regard "Branch's" suggestions opportune and good, and hope to see them fully discussed from now on, and brought before the Association at its meeting in St. Louis in next May.

MEDICUS.

Baton Rouge, La.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—I agree with "Branch" in his letter of February 6, as to the propriety of, in some way, popularizing membership in the American Medical Association. Give members of the profession a chance to join the Association. There are thousands who would willingly do so, but who cannot attend the yearly meeting, or cannot secure election as delegates. Under present rules only delegates, or those who live at the place of holding the meeting of the Association, can become members.

Our large institutions of learning are recognizing the necessity of entending facilities for students who desire to enter, by having examinations at other centres as well as where the college may be situated;

thus saving to the applicant the expense and trouble of long journeys.

There should be some regulation adopted by the American Medical Association, and widely published to the profession, whereby members of the medical profession can become members of the Association without presenting themselves in person for election. Then, as members increase, the annual dues can be decreased. In other words, make it easy to any reputable member of the medical profession to join the American Medical Association, and in this way there is every reason to believe it would number its members by the thousands.

Very truly yours,

J. H. BAXTER, M.D.

Washington, D. C., February 20, 1886.

[Some communications have been received which were not accompanied by the *name* of the author. We would remind contributors that the name and address must always be sent, though not necessarily for publication.—ED.]

ACTION OF SUBCUTANEOUS INJECTIONS OF COCAINE.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—With the view of contributing to the knowledge of the action of subcutaneous injections of cocaine, I beg leave to submit the following observations made upon myself:

Having read so much of the exhilarating and enlivening actions of cocaine and of its great stimulating power upon the cerebral nervous system, I resolved to try its effects upon myself. For this purpose I administered to myself, being in good health and of usual normal spirits and mental disposition, a subcutaneous injection of ½ grain of muriate of cocaine (Merck), repeating the dose after five minutes, as no effect whatever had taken place in the interval. About five minutes after the last injection I felt slight dizziness in the head, a prickling sensation in the tips of my fingers, and slight pressure in the epigastrium—all of which symptoms passed off within ten minutes. I was able to continue the literary work in which I was just engaged, but with some effort. I labored under slight drowsiness and my limbs became heavy. The action of the heart and pulsation were rather retarded. The face was pale, the sensibility of the cornea normal, that of the mucous membrane of the globe slightly reduced. Pupils were regular. Normal condition was reëstablished after half an hour of rest, during which time I had full control of my mental faculties.

After an interval of four days I repeated the experiment, using at once 2 grains of cocaine for hypodermatic injection. Hardly had two minutes elapsed after the administration when I felt my heart beating violently and the blood rushing to the head, which was quickly followed by a sensation of fulness and roaring in the latter and by noises in the ears. There was confusion of thought and impairment of the faculty of volition. A feeling of great uneasiness invaded the whole body, and slight twitching movements were felt in the toes and fingers, with a sensation of numbness. The feeling of nausea and pressure in the epigastrium was very marked. The acme of the paroxysm lasted for over five minutes, after which I found the face very pale and covered with cold perspiration. The eyeballs were somewhat sunken into the orbit, the pupils were enlarged, but of normal reflex action and accommodative power. The objects appeared slightly dim, but of normal proportions. Retraction and coördination of muscles were not changed. The sensibility of the cornea and conjunctiva was greatly diminished. Pulse was feeble, arterial tension and action of the heart slightly reduced. I felt tired and worn out, unable to concentrate my thoughts or to struggle against the creeping drowsiness. Half an hour after the injection I went to bed, laboring under nausea, general prostration, and slight attack of hemicrania. Sound sleep during the whole night brought about perfect recovery.

M. LANDESBERG, M.D.

40 W. 34th St., New York.

THE ASSOCIATION LED ASTRAY!

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—My attention has been called to an editorial in the *American Practitioner*, of February 20, reproduced in the *Medical News* of the 20th ult. I take it for granted it was written by the senior editor, Dr. D. W. Yandell. To all those familiar with the doings of the American Medical Association this editorial will sound strangely. To quote: "It (the A. M. A.) was led astray at New Orleans (Why was not Dr. D. W. Yandell, ex-President of the Association, there to keep it from being led astray?). It will doubtless be led astray again, and yet again, for designing, ambitious, selfish and industrious plotters will gather at every meeting, and opportunities for their *securing power* (italics ours) will occasionally occur." Dr. D. W. Yandell made his first appearance as a delegate from Kentucky in 1856, then in 1857 and 1859. His name does not appear again (nor his State) till 1871, when in San Francisco he was elected President. Neither his State nor he had any claims to the honor. It was, so report said, due to designing, ambitious, selfish and industrious plotting that the Presidency was awarded him. Since that time the senior editor of the *American Practitioner* and ex-President of the American Medical Association has attended only four meetings, and since 1874 none at all. With the exception of his address as President, no other contributions appear from his pen to the Association. In Dr. Yandell's Address (see page 103, Vol. 23, Trans. A. M. A.) he says: "The Association is making our profession one in heart throughout our borders." How does this comport with his ideas of 1886? He who runs can read.

Does such a career entitle the ex-President to read a lecture to the Association as to how it shall conduct itself? The least modicum of modesty should have taught him to *keep his say* to himself. Moses did very well when he was among the people; but when he climbed the mountain to see "the promised land" his

influence was gone. We fear the senior editor of the *American Practitioner* was elevated too early for his years. An ex-President of the Association should have some influence, and it should be in the body which has made him distinguished. With many others who have known him for years we sincerely regret the position he has taken. In the welfare and interest of the Association we hope to see Dr. Yandell at St. Louis in May next, and if his Kentucky eloquence can convince the American Medical Association that they have gone astray, we will cordially admit it. We are sorry Dr. Yandell has taken the course he has—we can only pity him.

TRUTH.

DISINFECTION OF CATHETERS.

TO THE EDITOR OF THE JOURNAL:

Dear Sir:—Permit me in this day of "catheter fever" to offer to your readers my mode of disinfecting catheters. Dr. Alexander Skene says that when he cut into his catheters which had lain several days in a strong solution of carbolic acid, they still contained micrococci underneath the incrustation. Taking a hint from that, I now pass through the catheter a saturated solution of iodoform in ether. The ether penetrates the incrustation, carries with it the iodoform, and performs its function where liquid could not enter. Yours truly,

W. P. SHOEMAKER, M.D.

Bradford, Pa., February 9, 1886.

ASSOCIATION ITEMS.

AMERICAN MEDICAL ASSOCIATION.

The Thirty-seventh Annual Session will be held in St. Louis, Mo., on Tuesday, Wednesday, Thursday and Friday, May 4, 5, 6 and 7, commencing on Tuesday at 11 A.M.

The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States.

Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association.

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies.

SECTIONS.

"The Chairman of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections. . . ."—*By-Laws*, Article 11, Sec. 4.

Practice of Medicine, Materia, Medica and Physiology.—Dr. J. T. Whittaker, Cincinnati, Ohio, *Chairman*; Dr. B. L. Coleman, Lexington, Ky., *Secretary*.

Obstetrics and Diseases of Women and Children.—Dr. S. C. Gordon, Portland, Me., *Chairman*; Dr. J. F. Y. Paine, Galveston, Texas, *Secretary*.

Surgery and Anatomy.—Dr. Nicholas Senn, Milwaukee, Wis., *Chairman;* Dr. H. H. Mudd, St. Louis, Mo., *Secretary*.

State Medicine.—Dr. John H. Rauch, Springfield, Ill., *Chairman*; Dr. F. E. Daniel, Austin, Texas, *Secretary*.

Ophthalmology, Otology, Laryngology.—Dr. Eugene Smith, Detroit, Mich., *Chairman*; Dr. J. F. Fulton, St. Paul, Minn., *Secretary*.

Diseases of Children.—Dr. W. D. Haggard, Nashville, Tenn., *Chairman*; Dr. W. B. Lawrence, Batesville, Ark., *Secretary*.

Oral and Dental Surgery.—Dr. John S. Marshall, Chicago, Ill., *Chairman*; Dr. A. E. Baldwin, Chicago, Ill., *Secretary*.

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not to exceed twenty minutes in reading), to the Chairman of the Committee of Arrangements, at least one month before the meeting.—*By-Laws*.

Committee of Arrangements.—Dr. Le Grand Atwood, St. Louis, Missouri, *Chairman*.

AMENDMENTS TO BY-LAWS.

By Dr. Foster Pratt, Mich.—Each Section shall nominate its Chairman and Secretary—all other nominations to be made, as now, by the nominating Committee.

By Dr. I. N. Quimby, N. J.—Create a new Section, to be known as the Section on Medical Jurisprudence.

WM. B. ATKINSON, M.D.,
Permanent Secretary.

1400 Pine St., S. W. cor. Broad, Philadelphia.

MISCELLANEOUS.

MEDICAL SCHOOLS AND STUDENTS IN THE UNITED STATES.—The Illinois State Board of Health has recently issued a pamphlet entitled "Medical Education and Medical Colleges in the United States and Canada, 1765–1885," in which the most suggestive facts revealed by tables and data are: First, that the number of medical colleges has not increased during the past year; secondly, that the number of medical students and of medical graduates is decreasing; and thirdly, that there is a more marked uniformity in the requirements of colleges. There are still 128 institutions for medical instruction in the

United States and Canada, the same aggregate as at the date of the last report. But there were 760 less students in attendance upon, and 273 less graduates from, the sessions of 1884–85, than upon and from the sessions of 1883–84. In the United States there were 953 fewer students and 278 fewer graduates; in Canada there were 176 more students and 5 more graduates. The schools are classified as follows: regular schools, 101; homœpathic 13; eclectic, 11; physio-medical, 1; and miscellaneous or mixed schools, 2. The number of medical students in 1882–83 was 13,088; in 1883–84, 12,762; in 1884–85, 12,002. In 1881–82 the number of medical graduates was 4555; in 2882–83, 4215; in 1883–84, 4101; and in 1884–85 only 3831. The increase in past years in students is most conspicuous in the smaller provincial schools; while in the large cities—Boston, New York, Philadelphia, Baltimore, Cincinnati, Chicago, New Orleans, and St. Louis—there has generally been a decrease. Thus the number of matriculants in medical schools in New York has fallen from 2209 in 1880–81 to 1829 in 1884–85. This fact may be interpreted in two ways. It may either mean that the metropolitan schools are getting more rigid in their requirements, or that the provincial schools are getting to be better educational institutions. We incline to the latter belief. The decrease in the number of graduates, noted above, is most satisfactory, indicating as it does a recognition on the part of the rising generation of the fact that in the United States, of all professions the medical is and for years has been the most overcrowded.—*The Lancet*, February 6, 1886.

SPECTROSCOPY OF BLOOD.—At the recent meeting of the Congress at Grenoble, says the *London Medical Record*, M. Henocque explained his new method of examining the blood with the spectroscope. The blood in the subungual region of the thumb is carefully examined; then the time necessary for the reduction of oxyhæmoglobin is ascertained; the blood is then placed in white porcelain capsules, when the presence of methæmoglobin can be recognized. The method is clinically useful. A stratum of blood is placed between thin glass slides superposed at an acute angle: this arrangement is called by M. Henocque a hæmatoscope. It shows the necessary quantity of hæmoglobin with reference to the thickness of the strata. M. Henocque has recently invented a chromometric method, in which the hæmatoscope is placed on an enamelled plate, which shows directly the quantity of oxyhæmoglobin contained in the blood examined. M. Henocque showed thin models of hæmatospectroscopes, one very simply constructed for the use of students, and another adapted for carrying out minute and delicate researches. Both instruments were constructed by M. Lutz, optician, of Paris.

ASSOCIATION OF PHYSICIANS AND PATHOLOGISTS.—In view of the fact that each one of the natural divisions of medicine, except those of general medicine and pathology, is represented in this country by a special society, it has occurred to some members of the profession that a similar Association of Physicians and Pathologists is desirable. Two preliminary meetings were held in New York City on October 10th and December 29th, respectively, at which the matter was thoroughly discussed, and, after a general expression of opinion, it was finally decided: 1. To form an Association of Physicians and Pathologists, of which the number of members shall be limited to one hundred (100). 2. To hold an annual meeting in the month of June in the city of Washington. 3. To hold the first meeting on Thursday and Friday, the 16th and 17th of June, 1886, with Dr. Francis Delafield, of New York, as President.

SAPPEY'S TREATISE ON THE LYMPHATICS.—At the meeting of the Academy of Medicine, of Paris, on February 2, M. Sappey presented a copy of his "Treatise on the Lymphatics," which was commenced in 1847. It consists of descriptive text and an atlas of forty-eight plates. At the same meeting of the Academy he presented two quarto volumes, one of which was his "Recherches sur les Eléments figurés du Sang dans la Série Animale," the other a work relating to the respiratory apparatus of birds; and, finally, four volumes representing the last edition of his "Descriptive Anatomy."

ARCHIVES SLAVES DE BIOLOGIE.—M. Maurice Mendelssohn and M. Charles Richet have founded a journal entitled *Archives Slaves de Biologie*. It will appear every two months, and will contain original articles from scientific Sclavonic authors whose works are intelligible to their fellow countrymen only unless interpreted in another language. MM. Mendelssohn and Richet have had the happy idea of reproducing the valuable memoirs of eminent Sclavonic professors and scientists in a form accessible to all nations. French is so generally spoken and understood throughout the civilised world, that the *Archives Slaves de Biologie* may be considered to be of universal utitity.

DR. FILEHNE, teacher of Pharmacology in the University of Erlangen, has accepted the Chair of Pharmacology in the University of Breslau.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING FEBRUARY 20, 1886.

Clark, J. H., Surgeon, detached from the "Hartford" on the reporting of his relief, Medical Inspector Bradley.

Bradley, Michael, Medical Inspector, ordered by steamer of March 10 from New York to Aspinwall, thence to Panama and to the "Hartford" as the relief of Surgeon J. H. Clark.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED FEBRUARY 20, 1886.

Austin, H. W., Surgeon, to proceed to Richford, Vermont, on special duty. Feb. 8, 1886.

Urquhart, F. M., Passed Asst. Surgeon, to proceed to Richmond, Virginia, for temporary duty. Feb. 16, 1886.